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In The
Supreme Court of the United States

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COUNTY OF ROCKLAND, NEW YORK, *et al.*,

Petitioners,

v.

FEDERAL AVIATION ADMINISTRATION, *et al.*,

Respondents.

◆

**On Petition For A Writ Of Certiorari
To The United States Court Of Appeals
For The District Of Columbia Circuit**

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PETITION FOR WRIT OF CERTIORARI

◆

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QUESTIONS PRESENTED FOR REVIEW

1. Whether the Court of Appeals erred in holding that the FAA did not violate the National Environmental Policy Act (NEPA) by failing to include a critical noise analysis for public comment as part of the EIS process for the NY/NJ/Philadelphia Airspace Redesign Project, preventing the public from critically analyzing and commenting on an analysis that was central to the FAA's determination that the project would not "use" public trust resources protected under section 4(f) of the Transportation Act.

2. Whether the Court of Appeals erred in holding that the FAA did not violate the mandate of the National Environmental Policy Act (NEPA) by failing to implement night ocean routing, a fundamental element of the selected alternative, in the Record of Decision (ROD), and by failing to include a mitigation measure explicitly agreed to in the Final Environmental Impact Statement.

3. Whether the Court of Appeals erred in approving an FAA decision violating Section 4(f) of the Transportation Act and this Court's decision in *Overton Park* when the agency affirmatively failed to obtain the comments of relevant state and local officials regarding protected parks and public trust resources.

QUESTIONS PRESENTED FOR REVIEW - Continued

4. Whether the Court of Appeals erred by holding that the Petitioners had "forfeited" their claim under section 4(f) of the DOT Act that the FAA had failed to contact state and local Park officials and give "individualized attention" to at least 236 sites because that specific issue had not been raised during the administrative process.

LIST OF ALL PARTIES TO THE PROCEEDING

The parties to the proceeding before the United States Court of Appeals for the District of Columbia Circuit, which is the court whose judgment is sought to be reviewed, were, as Petitioners, County of Rockland, New York, County of Delaware, Pennsylvania, Town of New Canaan, Connecticut, Timbers Civic Assoc., Friends of the Rockefeller State Park Preserve, Inc., Board of Chosen Freeholders of the County of Bergen, New Jersey, John Hodge, First Selectman, Town of New Fairfield, Connecticut, City of Elizabeth, New Jersey, County of Union, New Jersey and the Union County Freeholders Air Traffic and Noise Advisory Board, New Jersey Coalition Against Aircraft Noise, The Borough of Emerson, Commissioner Connecticut Department of Environmental Protection and the Respondent Federal Aviation Administration.

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PETITION FOR WRIT OF CERTIORARI

The Petitioners, County of Rockland, New York, the Connecticut Department of Environmental Protection, the Friends of Rockefeller State Park Preserve, the City of Elizabeth, New Jersey, and the New Jersey Coalition Against Aircraft Noise respectfully pray that this Court issue a writ of *certiorari* to review the decision of the United States Court of Appeals for the District of Columbia Circuit entered in this case on June 10, 2009.

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CITATIONS TO OPINIONS BELOW

The opinion of the United States Court of Appeals for the District of Columbia Circuit (D.C. Cir. June 10, 2009) is reprinted in the Appendix at App. 1. The Court denied Petitioners' request for rehearing or rehearing *en banc* on August 19, 2009. The Court's orders are reprinted in the Appendix at App. 146-149.

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JURISDICTIONAL STATEMENT

The judgment of the United States Court of Appeals for the District of Columbia Circuit was entered on June 10, 2009 and the Court denied petition for rehearing and rehearing *en banc* on August 19, 2009. This Court has jurisdiction over this petition pursuant to 28 U.S.C. § 1254(1).

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CONSTITUTIONAL PROVISIONS AND STATUTES INVOLVED IN THE CASE

The relevant statutes in this case are the Transportation Act of 1966, 49 U.S.C. § 303, and the National Environmental Policy Act of 1970, 42 U.S.C. § 4321, *et seq.*

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STATEMENT OF THE CASE

This case arises out of a decision of the Federal Aviation Administration (FAA) approving the FAA's Airspace Redesign Project for the New York, New Jersey and Philadelphia Metropolitan Areas to comprehensively redesign air traffic and control over a 31,000 square mile, five state region with 29 million affected residents. This massive project impacts populations throughout suburban New Jersey, New York, Connecticut, and Philadelphia as well as the public's use and enjoyment of numerous federal, state and local parks, recreation areas and historic sites, extending from Delaware to Connecticut.

In July, 2007, after a lengthy process, the FAA released its Final Environmental Impact Statement (EIS) under NEPA and allowed an additional 30 days for public comment. On September 28, 2007, the FAA released both its final corrected Record of Decision (ROD) and a new analysis of noise impacts to selected national parks and protected properties that were never made available for public comment during the NEPA process. Twelve groups of petitioners challenged the decision in three separate courts of appeals alleging, *inter alia,* violation of NEPA, the Transportation Act, and the Clean Air Act. The cases were consolidated in the Court of Appeals for the District of Columbia Circuit.

On June 10, 2009, the United States Court of Appeals for the District of Columbia Circuit dismissed the challenge to the FAA's decision. App. 1. In so doing, the Court held that none of the FAA's challenged actions constituted a significant procedural deficiency under the National Environmental Policy Act. The Court also held that the Petitioners "forfeited" their opportunity to raise a claim under Section 4(f) of the Transportation Act that the FAA had failed to consult all state and local park officials and did not give individualized attention to at least 236 public trust park and recreation areas because that precise claim had not been raised during the administrative proceeding. The Court denied petitions for rehearing and rehearing *en banc* on August 19, 2009. App. 146-149.

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REASONS FOR GRANTING THE WRIT

This case raises important questions concerning judicial review of DOT actions under NEPA and Section 4(f) of the Transportation Act as interpreted by this Court in *Citizens to Preserve Overton Park v. Volpe*, 401 U.S. 402 (1970). NEPA provides the right of public review and comment on the environmental impacts of major government projects. Yet, in this case, the FAA released and relied upon a critical noise analysis of 12 federal parks and historic sites only *after* the period of public comment was over, thus denying the public the opportunity to review and comment on that important analysis. The Court of Appeals never examined the importance of that analysis and its omissions and simply stated that the public's opportunities to comment on other unrelated aspects of the project were sufficient. Further, the Court of Appeals failed to address Petitioners' argument that the FAA's decision not to implement Night Ocean Routing – a fundamental part of the FAA's selected alternative in the Record of Decision – was a significant change in the Project requiring a Supplemental Environmental Impact Statement ("SEIS") and failed to address the FAA's decision not to include a noise compliance monitoring plan in the ROD after explicitly committing to include that plan in the FEIS.

Section 4(f) of the Transportation Act prohibits the Secretary of Transportation from adopting a project requiring the use of a public park unless "there is no prudent and feasible alternative." 49 U.S.C. § 303(c). That section and DOT's own regulations required the FAA to affirmatively contact state officials regarding the potential impacts to parks and historic properties to assess whether a "constructive use"[1] will result – an obligation forcefully supported

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[1] For a project to result in constructive use, a substantial impairment must occur. FAA Order 1050.1E defines "substantial

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in *Overton Park*. The Court of Appeals improperly rejected that argument as not having been raised before the Agency and never addressed the *Overton Park* decision.

These procedural failures constitute serious violations of federal law. The decision below ignored these violations and did not engage in a "searching and careful review" mandated by *Overton Park* as to whether an Agency's actions followed proper procedural requirements. *Id.* at 417. This decision constitutes an extreme departure from this Court's long-established precedent on issues of vital importance to Petitioners and the public they represent.

I. THE COURT OF APPEALS HOLDING PERMITTING THE FAA TO DEFER A CRITICAL SUPPLEMENTAL NOISE ANALYSIS FROM THE SCRUTINY OF THE EIS PROCESS UNDERMINES FUNDAMENTAL NEPA LAW.

The Court of Appeals erred by allowing the FAA to defer a critical supplemental noise analysis to avoid the scrutiny of the NEPA process. The agency relied on this in making a final determination in meeting its underlying statutory duty that its Air Space Redesign project will not violate the strong

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impairment" as "when the activities, features, or attributes of the resource that contribute to its significance or enjoyment are substantially diminished. . . ." Order 1050.1E, App. A § 6.2f. App. 197-198.

Congressional mandate under Section 4(f) of the DOT Act to avoid use of any federal, state or local park or historic property unless there are no "prudent or feasible" alternatives. If the Court of Appeals decision is allowed to stand, any federal agency may decide to exclude important studies from public scrutiny of the NEPA process even where those studies are central to the final agency decision. That result is contrary to NEPA, the CEQ regulations, the FAA's implementing NEPA procedures and the Court of Appeals for the District of Columbia Circuit's prior holdings.[2]

Indeed, this decision violates the twin goals of NEPA, as articulated by this Court in *Balt. Gas & Elec. Co. v. Natural Res. Def. Council, Inc.*, 462 U.S. 87, 97 (1983) (citations omitted), "plac[ing] upon the agency the obligation to consider every significant aspect of the environmental impact of a proposed action. . . . [and], ensur[ing] that the agency will inform the public that it has indeed considered environmental concerns in its decision-making process." To accomplish these twin aims, NEPA requires that federal agencies prepare draft and final environmental impact statements that thoroughly analyze

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[2] As stated by the Court of Appeals, "NEPA was intended to ensure that decisions about federal actions would be made only after responsible decision-makers had fully adverted to the environmental consequences of the actions and had decided that the public benefits flowing from the actions outweighed their environmental costs." *Illinois Commerce Comm. v. Interstate Commerce Comm.*, 848 F.2d 1246, 1259 (D.C. Cir. 1988).

all environmental impacts from its decision. *See id; Vermont Yankee Nuclear Power Corp. v. Natural Res. Def. Council,* 435 U.S. 519, 553 (1978).

Here, despite the fact that the FAA had undergone a lengthy EIS process, with considerable public comment, the Agency decided to include a *post hoc* supplemental noise analysis of 12 parks and historic properties studied at the specific request of the National Park Service to determine whether the project would "substantially impair" the public's use and enjoyment of those resources due to noise impacts from increased overflights. Without any analysis of the importance of the study in the FAA's decision making process, the Court excused FAA's decision to append this study to the Record of Decision – hiding that analysis from undergoing scrutiny in environmental review process – because the FAA otherwise performed an "extensive public outreach effort" and "thorough process of environmental review." *County of Rockland, New York v. F.A.A.*, No. 07-1363, 2009 WL 1791345, *8 (D.C. Cir. June 10, 2009) ("As indicated by FAA's extensive public outreach effort and its thorough environmental review process, the agency complied with the CEQ regulation" that direct the agency to make diligent efforts to involve the public in preparing and implementing its NEPA procedures.") App. 9.

A. The FAA's *Ad Hoc* Supplemental Noise Analysis Was Critical to the Public's Understanding of the Project and the FAA's Reliance on the Analysis Without the Benefit of Public Comment Violated NEPA.

The importance of this analysis to the public's understanding of the project's impacts to noise sensitive parks and for fully informing the FAA decision makers is clear from the record. On October 20, 2005, FAA released a Draft EIS (DEIS) that included a 4(f) noise analysis. The DEIS' 4(f) analysis received extensive comments and criticisms. Significantly, DOI harshly criticized FAA's 4(f) analysis, commenting that "[i]nformation presented in the DEIS regarding *noise* and visual changes, federally listed species, and aircraft-bird collisions is currently insufficient."[3] With respect to FAA's 4(f) analysis, the letter continued: "It is difficult to determine potential impacts to the 30 national park units within the study area with the data provided."[4] DOI explained:

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[3] App. 232 (emphasis added). Under FAA's Order 1050.1E, DOI retains an important role in ensuring FAA's compliance with 4(f), in part, because it has jurisdiction over many 4(f) resources. *See* FAA Order 1050.1E 6.1e, j. App. 196-197, 200-201.

[4] *Id.* The letter went on to state:

> "For example, Fire Island National Seashore, Delaware Water Gap National Recreation Area, and Upper Delaware Scenic and Recreational River are within the airspace of Islip and Newburgh/Stewart airports. These park units may be subject to impacts

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> "The main metric used for noise analysis in the DEIS (i.e., Day/Night Average Sound Level (DNL)) is not appropriate as the only metric for determining noise impacts to national parks. Additional metrics, such as time above ambient and percent time audible, provide a more complete and accurate description of potential noise impacts on national parks and other noise sensitive receptors. The Department finds that the noise analysis presented in the DEIS for [National Park Service] units and other noise-sensitive receptors in the study area is inadequate, and recommends revising the impact analysis to follow the correct FAA guidelines for noise-sensitive receptors and to include audibility and other more appropriate metrics in the assessment of impacts." DOI Comment, FEIS App. N. App. 234-235.

> from routing more traffic over them. However, information in the DEIS is insufficient to evaluate such impacts because the airspace of the various airports, the proposed reroutes of flights, and the locations of parks, historic sites and other noise-sensitive receptors are not clearly illustrated. Historic resources and parks, including the park units listed above, should be added to the Alternative Flight Track Change Illustrations located in Appendix E, Attachment C. It is not clear how determinations regarding impacts to NPS resources were made. Data required to make such determinations were either not available or not clearly identified."

App. 232-233.

Thus, DOI believed the exclusive use of the DNL metric for such noise sensitive sites was inadequate for determining whether 4(f) resources would be put to "use" by FAA's airspace redesign. *Id.*[5] App. 234. DOI further commented that

> "[b]ased on the above uncertainties, the Department cannot concur with the conclusion in the DEIS that there is no use of a Section 4(f) resource. We recommend that the FAA perform a more thorough analysis of impacts to National Park System units and the other listed Section 4(f) resources, using the correct guidelines and appropriate metrics, then re-evaluate the issue of 4(f) use."

Appendix N to FEIS, DOI Comment Letter. App. 236.

In response to DOI's comments, FAA provided assurances that the Final EIS would include additional noise analysis that would satisfy DOI and other stakeholders. *See* Appendix N, Response to Comments App. 241; Appendix Q to FEIS. App. 226. The FAA even subsequently kept the public comment period open for 30 days after the issuance of the FEIS. *See* Corrected Record of Decision (ROD) at p. 50. App. 125). However, despite FAA's assurances,

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[5] "DNL" stands for Day-Night Average Sound Level. DNL is a single value, expressed in decibels, that attempts to describe the overall noise level during an average day. To represent the greater annoyance caused by nighttime noise, the DNL metric adds a ten-decibel "penalty" for each nighttime noise event. App. 169.

FAA deferred the additional analysis until after the Final EIS was completed and the public comment period closed. That deferred analysis covered twelve sensitive 4(f) resources. In fact, the FAA's explanation for conducting the additional analysis[6] – that it only need to consult with appropriate federal and state officials outside the light of the public and open EIS process – directly contradicted the FAA's recognition in the Draft and Final EIS that it needed to make 4(f) noise analysis available as part of the EIS process. *See* FAA Order 1050.1E, App. 241-248, 163.

Petitioner County of Rockland, in commenting on the FEIS, even urged the FAA to "make its noise impact analyses available for additional public comment so that the impacts to these sensitive resources may be fully evaluated by decision-makers prior to issuing the ROD." App. 220. In so urging, Rockland noted that the FAA's own NEPA procedures recognize that the agency "will consider use of appropriate supplemental noise analyses in consultation with officials having jurisdiction for national Parks, national wildlife refuges and historic sites including traditional cultural properties where a quiet setting is a generally recognized purpose." Part 1050. App. 220.[7] The Agency's only response was that "[t]he letter raises issues that have already been addressed by FAA during the public comment process. As such, FAA is not providing additional responses to this letter." ROD at 54. App. 133-134.

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[6] "In Section 5.3.5.1 of the FEIS the FAA committed to conduct further evaluation, in consultation with appropriate federal and state officials, to determine whether predicted noise increases or visual changes over affected areas of the 4(f) resources listed in Table B.1 of Appendix B in the Record of Decision would result in a constructive use." Corrected ROD at B-1. App. 163.

The FAA's refusal to make this post-FEIS analysis available for public comment is especially important because the analysis was not merely an insignificant additional study. *It was central to FAA's final determination that the Project would not "use" any 4(f) resources.* While the additional analysis studied 12 additional parks requested by DOI, the FAA still concluded that it could rely on its DNL metric and not use a supplemental noise metric to provide a more complete and accurate description of potential noise impacts as DOI recommended. DOI Comments FEIS App. N. App. 241-247; App. 235-236. FAA's Record of Decision (ROD) stated that "[a]s to constructive use of other 4(f) properties, the analysis in the EIS and the *additional analysis included in the ROD in response to DOI comments*, confirm that the selected project would not cause increases in noise or other proximity impacts sufficient to impair the value of those resources." Corrected ROD at 55. App. 136 (emphasis added). The "*additional analysis included in the ROD in response to DOI comments*" is the *post-EIS* 4(f) noise analysis that FAA assured DOI and others it would include in the Final EIS in response to comments. *See* Appendix Q to FEIS. App. 226.

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[7] The County of Rockland even submitted a report from its expert stressing that "No technical rationale supports use of DNL to predict noise impacts in outdoor recreational settings. Additional metrics such as time above ambient level and percent audible time provide a more complete and accurate description of potential noise impacts on national parks and other noise sensitive receptors." Corrected ROD at D-57. App. 219-220.

In short, the FAA relied on this post-EIS noise analysis to reach its ultimate conclusion but without permitting additional public and agency comments on the adequacy of this critical late report.[8]

B. The Court of Appeals Reference to the FAA's "Extensive Public Outreach" to Justify the FAA's Failure to Make the Post-EIS Supplemental Noise Analysis Available for Public Comment Violates NEPA.

The Court of Appeals excused FAA's failure to make the additional analysis available for public comment as part of the NEPA process because FAA conducted an "extensive public outreach effort" and a "thorough environmental review process." *County of Rockland, New York*, 2009 WL 1791345 at *8. App. 9. But extensive public outreach and an otherwise adequate environmental review do not excuse FAA's violations. The Court of Appeals' circular rationale does injustice to the basic principles of NEPA, and the procedural requirements of CEQ regulations and FAA's Order 1050.1E. *See Balt. Gas & Elec. Co. v. Natural Res. Def. Council, Inc.*, 462 U.S. at 97, *supra* (citations omitted). Compliance with NEPA is required "to the fullest extent possible," 42 U.S.C. § 4332(2)(C), a command which this Court has admonished is "neither accidental nor hyperbolic." *Flint Ridge Dev. Co. v. Scenic Rivers Ass'n*, 426 U.S. 776, 787 (1976). By deferring decisive portions of the 4(f) analysis until the EIS was completed, the FAA made it impossible to consider every significant aspect of the environmental impact during the environmental review process. *See id.*

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[8] *Cf. Grand Canyon Trust v. F.A.A.*, 290 F.3d 339, 343-44 (D.C. Cir. 2002) (explaining how FAA completed a detailed site specific supplemental noise analysis beyond just using DNL levels, regarding noise impacts to Zion National Park in Utah from a proposed replacement airport).

The Court of Appeals' rationale is also inconsistent with CEQ regulations, which this Court has held are entitled to substantial deference.[9] CEQ regulation 40 C.F.R. § 1506.6(a) requires the agency to make diligent efforts to involve the public during the environmental review process. *Id.* Under that regulation, the FAA should have allowed a public comment period on the post-EIS 4(f) study. As noted above,

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[9] NEPA created the Council on Environmental Quality ("CEQ"); CEQ promulgated regulations governing NEPA's implementation ("CEQ Regulations") in 1978. 40 C.F.R. § 1500, *et seq.* The CEQ Regulations are applicable to and binding on all federal agencies. 40 C.F.R. § 1500.3. Courts are to give those regulations "substantial deference." *Andrus v. Sierra Club*, 442 U.S. 347, 358 (1979).

Petitioner County of Rockland demanded that FAA do so. *See* ROD App. D. App. 219-220. But the FAA simply rejected that request "out of hand." *See* Corrected ROD at p. 54. App. 133-134.

Had Petitioners and other members of the public been allowed to comment on the post-EIS study, they could have not only challenged the analysis of these 12 federal parks, but they would likely have questioned why the FAA did not conduct an analysis of other overlooked state and local parks, including Centennial Watershed State Forest in Connecticut and several parks in County of Rockland that will have more than a 3.0 DNL increase – the threshold for a more careful evaluation under the Part 150 guidelines.[10] Petitioners would have also likely focused on the need for a supplemental noise analysis for Rockefeller State Park Preserve (RSPP) in New York, a Park that was established by New York law for passive use where motorized vehicles, sporting activities and picnicking are not permitted and which the FAA's own noise screening analysis indicated would experience an increase in noise as a result of the project.[11] App. 264-268.

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[10] Centennial Watershed State Forest, located in Fairfield, Connecticut, in an area most affected by changing air routes, includes more than 15,000 acres of land specifically set aside for watershed protection and noise sensitive, passive recreational uses like hiking. Pet. Br. at 97. The Rockland County Parks "are examples of county parks known for their passive recreational activities such as hiking, experiencing the local ecology and viewing wildlife." Decl. of Alan Beers at Add. D to Pet. Br.

Here, the Court of Appeals even cited Section 1506.6(a) of CEQ regulations, and its recent decision of *Am. Bird Conservancy Inc. v. F.A.A.*, 516 F.3d 1027, 1035 (D.C. Cir. 2008) (holding that CEQ regulations requiring "diligent efforts to involve the public in preparing and implementing their NEPA procedures" requires, in part, that agencies give the public a comment period before making a final decision). Yet, the Court attempts to distinguish that decision as "inapposite" because, in appending additional analyses to the ROD in this case, the FAA did not "'evade' implementation of any FAA regulation requiring additional notice or public comment." *County of Rockland, New York*, 2009 WL 1791345 at *6. App. 9. However, that is a false distinction in light of the "FAA's Community Involvement Policy Statement" (dated April 17, 1995), affirming FAA's commitment to make complete, open and effective public participation an essential part to its actions, programs and decisions. Section 208a of Order 1050.1E. App.

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[11] RSPP was designated by New York state law as limited to passive recreation uses compatible with the long term protection of ecological and historical resources that merited designation of the park preserve. App. 264-268. *See* Decl. of Alix Schnee, Add. to Pet. Br. 47 ("Neither the Rockefeller Park Preserve as a whole nor the portion of the Park Reserve most impacted by the Redesign Project . . . was subjected to any baseline noise monitoring or assessment or was analyzed by noise modeling or by any other means to assess the noise impact of the Project.").

190-191. Because the FAA did not have procedures similar to the FCC's regarding the public's right to challenge a license decision, that does not permit the FAA to rely on the Agency's FAA's overall public outreach effort to meet NEPA's and its own exacting public participation requirements while also concealing this critical study from public scrutiny.

C. If Allowed to Stand, the Court of Appeals Decision Effectively Grants Federal Agencies "Carte Blanche" to Exclude Important Studies and Data from the NEPA Process by Relying on the Agency's "Overall" NEPA Record.

The consequences of the Court of Appeals decision are serious. If allowed to stand, the Court of Appeals decision would permit a federal agency to pick which studies an agency will offer the public for comment, and which studies it will not. That holding stands in marked contrast to the Court of Appeals recent holding that "it would appear to be a fairly obvious proposition that studies upon which an agency relies on in promulgating a rule must be made available during the rulemaking in order to afford interested persons meaningful notice and an opportunity for comments." *Am. Radio Relay League v. FCC*, 524 F.3d 227, 237 (D.C. Cir. 2008) (remanding the Commission's rule for its failure to make available for notice and comment unredacted "technical studies and data that it has employed in reaching its decision")[12]; *Nat'l Ass'n of Regulatory Util. Comm'rs v. F.C.C.*, 737 F.2d 1095, 1121 (D.C. Cir. 1984) (holding that "[d]isclosure of staff reports allows the parties to focus on the information relied on by the agency and to point out where that information is erroneous or where the agency may be drawing improper conclusions from it."). Public participation is an extremely important aspect of the NEPA; it provides the feedback that agencies need to make an informed decision.

Further, by permitting FAA to defer analysis so critical to its 4(f) determination, the Court of Appeals gives agencies the right to violate their own NEPA implementing orders. *See* FAA Order 1050.1E.[13] App.

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[12] *See also Gerber v. Norton*, 294 F.3d 173, 182 (D.C. Cir. 2002) (holding that the federal agency violated the ESA by failing to release map that "was indispensable if [public interest groups] were to have meaningful opportunity to comment on Winchester's permit application"); *Portland Cement Ass'n v. EPA*, 486 F.2d 375, 393 (D.C. Cir. 1973) ("it is not consonant with the purpose of a rule making proceeding to promulgate rules on the basis of inadequate data or that [to a] critical degree is known only to the agency.").

[13] Lower courts treat the Order as having the force of law. *See Town of Winthrop v. F.A.A.*, 535 F.3d 1, 7-8 (1st Cir. 2008) (treating FAA Order 1050.1E as binding); *Town of Marshfield v. F.A.A.*, 552 F.3d 1, 3 (1st Cir. 2008) (same). The Order provides in relevant part:

> "This order provides Federal Aviation Administration (FAA) policy and procedures to ensure agency compliance with the requirements set forth in the Council on Environmental Quality (CEQ) regulations for

(Continued on following page)

189-201. In relevant part, FAA's implementing Order provides that "[t]he EIS should thoroughly analyze and document prudent and feasible alternatives that would avoid the use of Section 4(f) property and provide detailed measures to minimize harm." *Id.* App. 201-202. That Order does not grant FAA discretion to defer critical studies such as the post-FEIS analysis at issue here from the NEPA process. In fact, the opposite is true. The Order requires a thorough analysis and, by implication, thorough study in the Final EIS, not afterwards. *See* FAA Order 1050.1E. App. 201-202. By upholding the FAA's decision, the Court of Appeals permits a federal agency to choose when to follow its own NEPA implementing procedures, in violation of NEPA's strict procedural mandate. *Am. Bird Conservancy*, 516 F.3d at 1033 (remanding an agency decision for failure to follow its own NEPA implementing regulation).

Finally, the NEPA violations sanctioned by the Court of Appeals are especially serious in the context of this project. The FAA developed the Airspace Redesign "to address congestion and delays at some of our nation's busiest airports." Corrected ROD at p. 1.

> implementing the provisions of the National Environmental Policy Act of 1969 (NEPA), 40 Code of Federal Regulations (CFR) parts 1500-1508; Department of Transportation Order DOT 5610.1C, Procedures for Considering Environmental Impacts; and other related statutes and directives."

FAA Order 1050.1E at 1.

App. 20. The project entailed profound changes in air traffic control procedures and flight paths affecting 30 million people living throughout 31,180 square miles in a five state region. It is being implemented in four stages through 2012. Public involvement was critical in this process to meet the environmental goals set forth under Section 4(f) and NEPA. The FAA was under a duty not to take any "shortcuts" that would deprive the public of their right to participate in order to fully inform the FAA in making such a far reaching decision. Yet, the Court of Appeals has approved a process that prevents state and local officials (and the public they represent) from participating fully in the FAA's vital decision making process.

II. THE COURT OF APPEALS ERRED IN UPHOLDING FAA'S SYSTEMIC VIOLATION OF THE MANDATES OF NEPA.

In addition to withholding an important environmental impacts analysis from public review and comment, FAA also violated NEPA by repeatedly informing the public and decision-makers of elements of its mitigation plan which it then failed to implement. Thus, the public was not only never informed of all potential project impacts, but it was then mislead as to the nature and extent of FAA's mitigation efforts.

A. The FAA Violated NEPA By Failing To Implement Night Ocean Routing Which Was a Fundamental Element of Its Selected Alternative in the Record of Decision.

FAA selected night ocean routing as a fundamental part of its Selected Alternative in the ROD to mitigate Project noise impacts on the areas surrounding Newark Airport. ROD at p. 22. App. 65-66; App. 249-255. FAA admitted that noise mitigation was essential to eliminate significant noise impacts on those areas by 2011. *Id.* FAA committed in the ROD to re-evaluate the FEIS, undertake appropriate environmental review, and amend the ROD if it revised or eliminated night ocean routing. ROD at p. 50. App. 125.

Night ocean routing has not been, and may never be, implemented. Without night ocean routing, FAA's Selected Alternative approved in the ROD is not the Project being implemented. The public has accordingly been denied the opportunity to evaluate and comment on the Selected Alternative without one of its most essential components. 40 C.F.R. § 1502.14(b). Moreover, FAA's noise modeling data for a large portion of the Project area are based upon and assume the existence of night ocean routing. Thus, the failure to implement night ocean routing invalidates much of the noise impact data contained in the FEIS and upon which the ROD is largely based. As FAA essentially conceded when it committed to re-evaluate the FEIS if this essential mitigation measure was not adopted, FAA's failure to implement night ocean routing and failure to undertake appropriate environmental review constitutes a "substantial change in proposed action" triggering the requirement for a Supplemental Environmental Impact Statement. 40 C.F.R. § 1502.9(c).

The Court of Appeals decision conflicts with decisions of other circuits holding that a SEIS is required if a significant impact on the environment will result from subsequent project changes. *Dubois v. U.S. Dept. of Agric.*, 102 F.3d 1273 (1st Cir. 1996); *Nat'l Wildlife Fed'n v. Marsh*, 721 F.2d 767 (11th Cir. 1983). Indeed, the FAA even admitted that without mitigation "significant and reportable impacts were projected in areas of Elizabeth." Resp. Br. 69. *See also* Pet. Br. 59, n.46. Thus, because the FAA has acknowledged that night ocean routing was a critical component of its mitigation plan proposed in the FEIS. FEIS App. Q. App. 260-262. The FAA is required to prepare an SEIS to consider the impacts that such a fundamental change to the project will have on the public health and welfare.

B. FAA Violated NEPA By Failing to Include a Noise Compliance Monitoring Plan in the ROD When it had Explicitly Committed to do so in the Final Environmental Impact Statement.

FAA unequivocally committed in the FEIS to include a noise compliance monitoring plan in the ROD.

FEIS App. Q. App. 257-259. FAA's ROD did not contain a noise compliance monitoring plan. FAA Order 1050.1E, Paragraph 512b states that any mitigation measure made a condition of approval of the FEIS must be included in the ROD. App. 257-259; Pet. Br. 62. The FEIS and ROD state that noise mitigation is required to avoid significant environmental justice impacts to minority communities in the City of Elizabeth. ROD at pp. 21-22. App. 63-67; App. 249-255. FAA ignored its own rule by failing to include a noise compliance monitoring plan in the ROD. FAA Order 1050.1E, Paragraph 512b. App. 257-258.

The Court of Appeals decision dismissed FAA's binding commitment in the FEIS to include a noise compliance monitoring plan in the ROD as a "stray comment." App. 7. This was neither a proper application of the law nor accurate. Elsewhere in the FEIS, in response to a comment expressing concern regarding whether the modeled noise results would be achieved in practice, FAA again cited FAA Order 1050.1E, Paragraph 512b and reiterated that, with respect to each mitigation measure selected, a "monitoring and enforcement program shall be adopted. . . ." FEIS App. Q. App. 256-259. The Court then concluded that "[a]bsent a *firm commitment* to such monitoring, neither NEPA nor the agency's regulations require it." App. 7 (emphasis added). The Court did not define what would constitute a "firm" commitment as opposed to any other commitment. The panel cited to this Court's decision in *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 359 (1989), but that opinion does not support the panel's conclusion. In this case, unlike *Robertson*, FAA unqualifiedly committed to a specific noise mitigation plan in the FEIS. FEIS App. Q. App. 259. If left standing, the Court of Appeal's decision effectively modifies *Robertson v. Methow Valley* by extending that decision to cases where an agency explicitly reneges on its EIS commitment to implement specific mitigation measures.

III. THE FAA'S FAILURE TO FOLLOW THE MANDATES OF SECTION 4(f) OF THE TRANSPORTATION ACT BY NOT OBTAINING THE COMMENTS OF STATE AND LOCAL OFFICIALS IS A MATTER OF VITAL IMPORTANCE TO PETITIONERS THAT WAS ERRONEOUSLY IGNORED BY THE PANEL.

Certiorari is further warranted because the Court of Appeals approved an action of the FAA that completely failed to follow the requirements of Section 4(f) of the Transportation Act. Section 4(f) and *Overton Park* impose on the FAA a mandatory duty to communicate with state officials regarding the protection of public parks and historic properties. *See*, 49 U.S.C. § 303(c); *Citizens to Preserve Overton Park v. Volpe*, 401 U.S. 402, 411-412 (1971). The FAA never contacted Connecticut or County of Rockland officials regarding the potential 4(f) impacts to public trust parks and properties. By not contacting relevant state and local officials, the FAA unlawfully deprived these officials of their right to comment on and fully inform the FAA of the impact of the agency's project on these important public trust properties. Yet, the court below has approved the FAA's doing precisely that by upholding the agency's decision not to contact local officials (and effectively the public they represent) and allow them to participate fully in the FAA's vital decision making process. This error involves a question of federal law of vital importance to all states and local governments.

Public involvement is a fundamental element in meeting the environmental goals set forth under Section 4(f). Section 4(f) expressly "prohibit[s] the Secretary of Transportation from adopting a project . . . requiring the use of . . . a public park . . . " unless "there is no prudent and feasible alternative. . . ." 49 U.S.C. § 303(c).[14] As this Court noted more than thirty years ago in its only case interpreting Section 4(f) in *Citizens to Preserve Overton Park v. Volpe,* 401 U.S. 402, 411-412 (1971):

> Section 4(f) of the Department of Transportation Act and § 138 of the Federal-Aid Highway Act are clear and specific directives. Both . . . provide that the Secretary 'shall not approve any program or project' that requires the use of any public parkland 'unless (1) there is no prudent and feasible alternative to the use of such land, and (2) such

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[14] Note that 49 U.S.C. § 301(8) states that the FAA is to "consult and cooperate with State and local government."

> program includes all possible planning to minimize harm to such park . . . '

In *Overton Park*, the United States Department of Transportation argued, as the FAA does here, that it had discretion to decide how to determine the extent of the impact of its project. This Court, however, noted that "no such wide-ranging endeavor was intended" under the Act and that "[i]t is obvious that in most cases" it would be less expensive and more direct to use public parkland than to disrupt residential or commercial land. *Id.* at 412-13. The Court then concluded that "very existence of the statutes indicates that protection of parkland was to be given paramount importance." *Citizens to Preserve Overton Park v. Volpe,* 401 U.S. 402, 412-413 (1971) (footnotes omitted).[15] The Court added that "Congress . . . specified only a small range of choices that the Secretary can make [and that] a reviewing court must be able to find that the Secretary could have reasonably believed that in this case there are no feasible alternatives or that alternatives do involve unique problems." *Id.* at 416. The *Overton Park* Court also explicitly held that the court's inquiry "is to be searching and careful" and that such review includes

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[15] As the Court stated, "the legislative history indicates that the Secretary is not to limit his consideration to information supplied by state and local officials but is to go beyond this information and reach his own independent decision." 114 Cong. Rec. 24036-24037. *Id.* at 413 n.28.

"whether the Secretary's actions followed the necessary procedural requirements." *Id.* at 416-417.

This case does not involve a question of the insufficiency or inadequacy of the FAA's efforts to communicate. Rather, in defiance of a clear mandate, the FAA never communicated with officials of Connecticut's Department of Environmental Protection and County of Rockland park officials regarding impacts to State and County parks and properties protected by Section 4(f). That failure directly conflicts with the FAA's own regulation implementing *Overton Park* stating that the FAA "assumes . . . that any part of a publicly owned park, recreation area, refuge or historic site is significant unless there is a statement of insignificance relative to the whole park by the federal, state or local official having jurisdiction thereof" and that "the responsible FAA official must consult all appropriate Federal, State and local officials having jurisdiction over the affected Section 4(f) resources when determining whether project-related noise impacts would substantially impair the resources." Order 1050.1E sect. 6.2(a) and (e). App. 195-197.

The FAA's failure to follow the *Overton Park* mandate and the Agency's own regulations undermines the FAA's ultimate conclusion as stated in the FAA's corrected Record of Decision that: "As to constructive use of other 4(f) resources, the analysis in the EIS and the additional analysis in the ROD in response to DOI comments confirm that the selected project would not cause an increase in noise or other proximity impacts sufficient to impair the value of those resources." Corrected ROD at 52. App. 136 (emphasis supplied). This statement is clearly misleading because the FAA's statement was based on a record that is legally incomplete and may not support the FAA's ultimate conclusion that the project would not result in a "constructive use" of any Section 4(f) trust property anywhere in the five state project area.

Further, by ignoring *Overton Park* and the FAA's own regulations as applied to this record, the court failed to engage in the "searching and careful review" required by law. Without any analysis of the law and the facts, the court below has endorsed the FAA's "shortcuts" in meeting its 4(f) responsibilities. Under this ruling, the FAA need only consider a "subset" of selected potential 4(f) properties in making the crucial threshold determination of whether the project could result in a constructive use of any federal, state or local park and historic site without ever contacting state or local park officials. If such officials determine, after the close of comments, that important public properties in their jurisdictions were never evaluated for potential uses in violation of 4(f), they can never challenge FAA's arbitrary determination. They would forever be deprived of an opportunity to present evidence that the FAA overlooked important trust resources located in their jurisdiction where a quiet setting was a generally recognized feature or attribute of the site's significance.

IV. THE COURT OF APPEALS ERRED BY FINDING THAT PETITIONERS HAD "FORFEITED" THEIR SECTION 4(f) CLAIMS BY NOT PRECISELY RAISING THE SPECIFIC ISSUE OF FAA'S DUTY TO CONTACT STATE AND LOCAL OFFICIALS EVEN THOUGH THE ISSUE OF THE PROJECT IMPACTS ON TRUST PROPERTIES WAS RAISED DURING THE ADMINISTRATIVE PROCESS.

Certiorari is also warranted because the Court of Appeals misinterpreted its own precedent on the law of waiver and ignored numerous decisions from other circuits in holding that Petitioners had "forfeited" their right to challenge the clear failure of the FAA to affirmatively contact and seek input from state officials and other parties regarding affected parks.

The standard of review of the purely legal issue of the applicability of the doctrine of waiver is *de novo*. *See Coalition for Gov't Procurement v. Fed. Prison Indus., Inc.*, 365 F.3d 435, 461-462 (6th Cir. 2004) (waiver doctrine is the codified version of exhaustion.) *See Northern Michigan Hospitals, Inc. v. Health Net Federal Services, LLC*, 2009 WL 2869149, *4 (3rd Cir. 2009) (The standard of review under the doctrine of issue exhaustion is *de novo* review); *Diaz v. United Agric. Employee Welfare Ben. Plan & Trust*, 50 F.3d 1478, 1483 (9th Cir. 1995) (*citing Amato v. Bernard*, 618 F.2d 559 (9th Cir. 1980)).

The record unequivocally reveals that the Petitioners and others repeatedly raised Section 4(f) issues before the FAA. *See, e.g.*, ROD App. D-57. App. 219-223. For example, the County of Rockland's discussion of Section 4(f) included a request to the FAA for the full evaluation of noise sensitive resources. FEIS App. Q. App. 219-223. (Friends of Rockefeller State Park Preserve stressed FAA's obligation to comply with all aspects of 4(f)). Additionally, the Chair of the Rockland County Legislature commented on August 30, 2007, that "there will be a deleterious effect of the airplane noise over [County Parks]. Increased airplane noise will certainly have a negative effect on the enjoyment of our open spaces. . . ." App. 213. Rockland County also requested that the FAA delay its final decision until it conducted a full evaluation of noise sensitive park resources. App. 219-223.

In fact, the FAA itself backhandedly recognized that Petitioners raised the "heightened analysis" issue – which thus preserves that issue on appeal. Resp. Br. 87. "Moreover, with one exception [that of Ardens Historic District, part of Petitioner Timbers Civic Association], . . . no commenter recommended replication of the additional analysis for the non-federal properties that Petitioners now focus on"). It is hardly possible, therefore, for the FAA to claim that it was not on notice of the issue of the lack of Section 4(f) compliance in this case.

Further, other stakeholders raised the issue of FAA's deficient 4(f) analysis as well. For example, Petitioners' Brief quotes the United States Fish and Wildlife Service comment in the Record highlighting

FAA's inadequate 4(f) analysis: "There are still concerns related to insufficient data on noise impacts as they relate to National Park Service units and the other listed Section 4(f) resources, including units of the National Wildlife Refuge System in New York, New Jersey, and Pennsylvania." *See* Pet. Br. 81.

The above referenced comments show that the FAA was notified, at the appropriate time, of the legal issues involved with the proper statute identified and of the nature of the noise impacts of concern. The FAA, therefore, was given much more comprehensive notice than was the case in *Friends of Richards-Gebaur Airport v. F.A.A.,* 251 F.3d 1178, 1194-95 (8th Cir. 2001) or *Native Ecosystems Council v. Dombeck*, 304 F.3d 886, 898-900 (9th Cir. 2002), where much more abbreviated notice was given to the relevant agencies. In both of these later cases, however, the respective courts of appeals found that notice was sufficient and the issues raised not deemed waived.

Thus, various parties did raise the issue of the need to consider potential impacts to 4(f) properties but the FAA never followed up as required by soliciting the comments of state and local officials and evaluating these comments in its impacts analysis.

The Court of Appeals also ignored established precedent that one objection, *by any party,* puts the FAA on notice and preserves that issue on appeal. *See* 49 U.S.C. § 46110(d); *N.E. Maryland Waste Disposal Authority. v. EPA,* 358 F.3d 936, 948 (D.C. Cir. 2004) (per curiam). As noted above, the County of Rockland's discussion of 4(f) issues included a request for full evaluation of noise resources. App. 219-223. This was sufficient to preserve the issue for appeal. ("Consideration of the issue by the agency at the behest of another party is enough to preserve it"); *Northwest Airlines, Inc. v. DOT,* 15 F.3d 1112, 1121 (D.C. Cir. 1994) (Northwest Airline's one-line argument during administrative hearings was sufficient to preserve issue for appeal). *See also Friends of Richards-Gebaur Airport v. F.A.A.,* 251 F.3d 1178, 1194-95 (8th Cir. 2001) (holding that where a party to the administrative process raises an issue by quoting the specific language of the statute, it preserved the argument on appeal, even if the argument was not thorough at the administrative level). *See also Reytblatt v. U.S. Nuclear Regulatory Comm'n,* 105 F.3d 715, 721 (D.C. Cir. 1997) (finding petitioner was "at liberty" to raise an issue on appeal raised by another party during administrative proceedings); *Cellnet Commc'n v. FCC,* 965 F.2d 1106 (D.C. Cir. 1992) ("Consideration of the issue by the agency at the behest of another party is enough to preserve it"). It is enough that the *legal issue* of the FAA's 4(f) duty to assess the project's impacts on state and local parks was raised below. All that is required under the law of waiver is that the agency be on notice of the underlying issue, not that every possible technical objection was specifically raised. *Kleissler v. United States Forest Serv.,* 183 F.3d 196, 202 (3rd Cir. 1999); *Southwest Ctr. For Biological Diversity v. U.S. Bureau of Reclamation,* 143 F.3d 515, 521-22 (9th Cir. 1998). In this case, as noted above, several parties highlighted 4(f) compliance issues before the FAA. FAA clearly cannot claim that it was unaware of its 4(f) duties.

Further, not only has the Court of Appeals in this case incorrectly applied the doctrine of waiver under these facts, is has also created a split in the circuits by rejecting the notice-based approach used in the Eighth, Ninth, and Third Circuits in favor of a completely new standard that places an almost impossible burden of specificity on petitioners seeking to avoid losing the ability to raise an issue on appeal. In fact, because of the limited discussion of this issue by the Court of Appeals, it is not possible at this point for any petitioner in the District of Columbia Circuit to know what notice must be given at the agency level in order to preserve a claim for appeal. This problem is particularly acute because many federal statutes permit an appeal of an agency action to be taken either in the Court of Appeals in which the parties are located or the District of Columbia Circuit.

Ultimately, the FAA has an affirmative obligation to consult with state and local officials regarding impacts to parks and historic properties. Therefore it makes no legal or logical sense to state that the Petitioners have waived the FAA's obligations by failing to tell the FAA to comply with Section 4(f) when it is legally obligated to do so. In fact, one court has held that when an agency has a legal duty, such an obligation *cannot* be waived. *See Wilderness Society v. Salazar*, 603 F. Supp. 2d 52, 70 (D.D.C. 2009).

Finally, even if the various parties had not raised 4(f) compliance before the agency, and even if it was possible for the agency to waive its statutory duty to coordinate with state and local officials, the Court overlooked the alternative basis under 49 U.S.C. § 46110(d) ("reasonable grounds for not making the objection") for Petitioners not raising the specific 236 unstudied parks issue. *See Ark. Power & Light Co. v. FPC*, 517 F.2d 1223, 1236 (D.C. Cir. 1975) ("the exhaustion of remedies doctrine which is expressed in the statute is not inflexible; it allows for deviation where the interests of justice dictate . . . " (*citing FPC v. Colo. Interstate Gas Co.*, 348 U.S. 492, 498-99 (1955))). Here, the FAA never said during the administrative process that it would not contact certain state and local parks officials in conducting its Section 4(f) environmental review. *See Communities Against Runway Expansion, Inc. v. F.A.A.*, 355 F.3d 678, 686 (D.C. Cir. 2004) (no waiver when petitioner "plausibly asserts that it has no reason to suspect alleged defects" in NEPA analysis.). Therefore, Petitioners could not have challenged such a position during the administrative process. Rather, Petitioners claim that the FAA omitted study of "at least" 236 parks only came to light *after* suits were filed, cases consolidated and the petitioners reviewed the massive FAA record to determine the aggregate number of parks within the jurisdictions of the eleven petitioners that were never studied.

In sum, even if it were possible for the Petitioners to waive the FAA's legal obligation to seek state and local 4(f) input, which it is not, the record demonstrates, unequivocally, that the issue of section 4(f) compliance for state and local parks was presented to the FAA. Alternatively, it is not reasonable to require Petitioners to foresee that the FAA would fail to meet its 4(f) obligations when the FAA never informed either the public or responsible officials that it would not contact them as required. Under either analysis, the panel below has broken with every other circuit that has reviewed these issues and established a new and not well-defined standard that would require an essentially impossible level of specificity on the part of any party seeking to preserve an issue for appeal.

CONCLUSION

For all of the foregoing reasons, the Petitioners respectfully submit that this Petition should be granted and a writ of *certiorari* should issue to review the judgment and opinion of the United States Court of Appeals for the District of Columbia Circuit.

Respectfully submitted,

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United States Court of Appeals
FOR THE DISTRICT OF COLUMBIA CIRCUIT

No. 07-1363 September Term, 2008

COUNTY OF ROCKLAND, NEW YORK, ET AL.,
PETITIONER

FILED ON: JUNE 10, 2009

v.

FEDERAL AVIATION ADMINISTRATION,
RESPONDENT

Consolidated with 07-1437, 07-1493, 07-1494, 07-1495, 07-1496, 07-1497, 07-1498, 07-1499, 08-1105, 08-1106, 08-1107

On Petitions for Review of an Order of the Federal Aviation Administration

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Before: SENTELLE, *Chief Judge*, GINSBURG, *Circuit Judge*, and RANDOLPH, *Senior Circuit Judge*.

JUDGMENT

These petitions for review were considered on the record from the Federal Aviation Administration and on the briefs and arguments of the parties. It is

ORDERED AND ADJUDGED that the petitions for review be dismissed insofar as the petitioners forfeited some of their challenges and otherwise denied for the reasons given in the attached memorandum opinion.

Pursuant to D.C. Circuit Rule 36, this disposition will not be published. The Clerk is directed to withhold issuance of the mandate herein until seven days after resolution of any timely petition for rehearing or petition for rehearing en banc. *See* Fed. R. App. P. 41(b); D.C. Cir. Rule 41.

FOR THE COURT:
Mark J. Langer, Clerk

By: /s/
Michael C. McGrail
Deputy Clerk

MEMORANDUM OPINION

In a corrected Record of Decision (ROD) issued September 28, 2007 the Federal Aviation Administration adopted a multi-phase plan to modernize the New York/New Jersey/Philadelphia Metropolitan Area airspace. The redesign shifts flight paths, reallocates management of particular sectors of airspace amongst air traffic control facilities, and adopts new flight procedures. The changes will, the FAA determined, reduce delay and increase operational efficiency, without imposing significant noise effects upon, or increasing air pollution in, the states below the NY/NJ/PHL airspace. The petitioners object to the FAA's analysis of environmental impacts as procedurally invalid and substantively unreasonable, in violation of the National Environmental Policy Act (NEPA), the Department of Transportation Act (DOT Act), and the Clean Air Act (CAA). We dismiss the petitions for review insofar as the petitioners forfeited some of their challenges and deny the rest of the petitions because the FAA's environmental impact analysis was procedurally sound and substantively reasonable.

I. NEPA

NEPA directs a federal agency to "include in every . . . report on proposals for . . . major Federal actions significantly affecting the quality of the human environment, a detailed statement . . . on . . . the environmental impact of the proposed action," 42 U.S.C. § 4332(2)(C)(i), known as an environmental impact statement (EIS). We review the FAA's compliance with NEPA for the most part under the arbitrary and capricious standard of the Administrative Procedure Act, asking whether the agency provided "the necessary process" and took a "'hard look' at environmental consequences." *Robertson v. Methow Valley Citizens Council,* 490 U.S. 332, 350 (1989); *see Nevada v. Dep't of Energy,* 457 F.3d 78, 93 (D.C. Cir. 2006). We address only a few of the petitioners' many objections to the EIS. None of the petitioners' objections amounts to a significant procedural deficiency and none indicates that the FAA failed to take a "hard look" at the environmental impacts of its action. *See Cmtys. Against Runway Expansion v. FAA,* 355 F.3d 678, 685 (D.C. Cir. 2004).

The petitioners first attack the FAA's forecast of future traffic. The agency's forecast is entitled to "even more deference" than this court gives "under the highly deferential arbitrary and capricious standard." *St. John's United Church of Christ v. FAA,* 550 F.3d 1168, 1172 (D.C. Cir. 2008). The petitioners argue the FAA failed to consider reasonably foreseeable indirect effects of the redesign, as required by 42 U.S.C. § 4332(2)(C)(ii) and 40 C.F.R. § 1508.8(b), because the agency refused to adjust its forecast for the growth-inducing effect of reductions in flight delay. In the FAA's experience, however, airspace redesign, which increases throughput but not airport capacity, does not induce significant enough additional demand to warrant modeling. We have deferred to similar reasoning before, and we do so again here. *See City of Olmstead Falls v. FAA,* 292 F.3d 261, 272 (D.C. Cir. 2002). The petitioners insist the FAA's reliance upon its experience ran counter to the evidence before it, but they point to statements of the agency that show nothing more than the possibility of another reasonable view; that is not enough to discharge their burden to show the FAA was arbitrary, *see City of Los Angeles v. FAA,* 138 F.3d 806, 808 (9th Cir. 1998).

Next, the petitioners change course, contending that once the FAA recognized it had overestimated future traffic, particularly at Newark International Airport, it should have adjusted the baseline for its environmental analysis. The FAA, however, took the requisite hard look by "creating its models with the best information available when it began its analysis and then checking the assumptions of those models as new information became available." *Village of Bensenville v. FAA,* 457 F.3d 52, 71 (D.C. Cir. 2006). Although the agency found a 14% gap between its forecast of 2006 traffic on the average annual day at Newark and actual traffic there on the average day in 2005, it also found the overall forecast was well within the 10% margin of acceptable error the agency employs when deciding whether a forecast is useful for decision making. The FAA concluded the forecast, although not perfect, still "capture[d] the general flow and magnitude of the traffic in a way that can show differences among the proposed alternatives."

The petitioners' chief complaint is that the FAA's explanation is unreasonable because whether the redesign will reduce delay turns upon the forecast at Newark. As the FAA explains, however, although Newark will experience the greatest reduction in "block time" – which the petitioners erroneously treat as a reduction in delay – all the major airports in the region will experience reductions in delay. The petitioners' focus upon one data point for Newark is therefore based upon their having misunderstood the record before the agency. Given the substantial deference we owe the agency, *see St. John's,* 550 F.3d at 1172, we cannot say its reassessment of the forecast was arbitrary and capricious.

In their final challenge to the FAA's traffic forecast, the petitioners argue the FAA should have forecast the impact of future traffic in 2012 and in 2017 because the agency "usually" forecasts such impacts for the "year of anticipated project implementation and [for] 5 to 10 years after implementation." FAA Order 1050.1E, Environmental Impacts: Policies and Procedures app.A § 14.4g(2) (Mar. 20, 2006). The FAA, however, need only select an "appropriate" timeframe for a forecast, *id.*, and the petitioners have not given us a reason to think the FAA, when it began the analysis in 2001, selected an inappropriate timeframe; nor have they shown that, once the FAA pushed back the date of implementation, it was arbitrary not to restart the analysis. The probability that air traffic will increase after 2011 does not show the FAA's decision to adopt the redesign with environmental mitigation measures was based upon an insufficient appreciation of the impact of the project.

The petitioners next complain the FAA should have produced a supplemental draft EIS (DEIS) because, they assert, the agency substantially changed the project at the eleventh hour when, after having issued the DEIS, it designed a noise mitigation measure routing flights over part of the Rockefeller State Park Preserve in New York. *See* 40 C.F.R. § 1502.9(c) (requiring supplemental DEIS whenever agency "makes substantial changes in the proposed action that are relevant to environmental concerns"). As the FAA explains, however, it essentially readopted the pre-redesign flight path over the park, the noise impact of which had already been the subject of public comment when the agency assessed the no-action alternative. We defer to that reasonable explanation why no supplemental analysis was necessary. *See Marsh v. Or. Natural Res. Council,* 490 U.S. 360, 374-77 (1989).

One more NEPA challenge deserves mention: The petitioners argue the FAA failed to honor a commitment it made in the final EIS (FEIS) to institute a compliance monitoring program as part of its noise mitigation plan. In responding to a comment upon the Noise Mitigation Report, the FAA briefly stated the agency would adopt a compliance monitoring plan in the ROD. The FAA, however, never developed a detailed monitoring program as part of the FEIS, or specified one in its ROD, and the agency's stray comment was not a binding commitment to adopt such a program. Absent a firm commitment to such monitoring, neither NEPA nor the agency's regulations require it. *See* 40 C.F.R. § 1505.3 ("Mitigation . . . and other conditions established in the [EIS] or during its review and committed as part of the decision shall be implemented"); Order 1050.1E § 512b ("Any mitigation measure that was made a condition of the approval of the FEIS must be included in the ROD"); *cf. Robertson,* 490 U.S. at 352 (NEPA does not impose "substantive requirement that a complete mitigation plan be actually formulated and adopted" before agency can act).

II. DOT Act

Section 4(f) of the DOT Act prohibits the Secretary of Transportation from adopting a "project . . . requiring the use . . . of a public park . . . or land of an historic site" unless "there is no prudent and feasible alternative to using that land" and the Secretary has done "all possible planning to minimize harm to the park . . . or historic site." 49 U.S.C. § 303(c). The prohibition of the Act extends to constructive use, including "noise that is inconsistent with a parcel of land's continuing to serve its recreational, refuge, or historical purpose." *City of Grapevine v. DOT,* 17 F.3d 1502, 1507 (D.C. Cir. 1994). The FAA applied the guidelines contained in 14 C.F.R. pt.150 and, as required by Order 1050.1E app.A § 6.2i, considered "[a]dditional factors" beyond the guidelines when assessing "the significance of noise impacts on noise sensitive areas." Based upon that analysis, the FAA concluded the redesign would not result in the constructive use of any § 4(f) property.

The petitioners argue the FAA's process of screening for potentially affected § 4(f) properties was procedurally defective and substantively inadequate because the agency did not consult all state and local park officials and did not give individualized attention to at least 236 properties the petitioners say may be affected. We dismiss this challenge as forfeit because no one raised it during the administrative proceeding. *See Olmstead Falls,* 292 F.3d at 274.

With respect to properties that were the subjects of public comments, the petitioners argue the FAA violated § 4(f) and Order 1050.1E (1) by failing to conduct individualized analyses of certain properties they say are noise-sensitive and (2) by improperly analyzing noise impacts at another property. Because, however, the petitioners have failed to impugn the agency's screening methodology or to offer "a serious argument" that the FAA failed adequately to consider any property that may suffer a constructive use, we defer to the agency, *see Town of Cave Creek v. FAA*, 325 F.3d 320, 333 (D.C. Cir. 2003).

The petitioners also argue the FAA violated § 4(f) and 40 C.F.R. § 1506.6 by delaying additional noise impact analyses for several parks, which analyses were then summarized in, and appended to, the ROD without an opportunity for further public comment. Section 4(f) does not require such an additional process, however, and 40 C.F.R. § 1506.6(a) merely directs the agency generally to "[m]ake diligent efforts to involve the public in preparing and implementing [its] NEPA procedures." As indicated by the FAA's extensive public outreach effort and its thorough process of environmental review, the agency complied with the regulation. The petitioners cite *Am. Bird Conservancy, Inc. v. FCC*, 516 F.3d 1027, 1035 (D.C. Cir. 2008), but that case is inapposite because in appending additional analyses to the ROD the FAA did not "evade" implementation of any FAA regulation requiring additional notice or public comment.

III. Clean Air Act

The CAA requires a federal agency to determine whether a proposed federal project will conform to an applicable state implementation plan (SIP) adopted to achieve the Environmental Protection Agency's national ambient air quality standards (NAAQS). 42 U.S.C. § 7506(c). Pursuant to § 7506(c)(4)(A), the EPA has promulgated a General Conformity Rule that relieves a federal agency of the obligation to conduct a full-scale conformity determination if the project is not "regionally significant," 40 C.F.R. § 93.153(i)-(j), and if the project either will result in at most *de minimis* emissions of criteria pollutants, *id.* § 93.153(b)-(c), or comes within one of the categories in the agency's list of actions that are presumed to conform to any SIP, *id.* § 93.153(f)-(h). Because we hold the FAA reasonably concluded the redesign is exempt from a conformity determination under the *de minimis* exemption, we need not and do not reach the petitioners' challenge to the agency's having relied, in the alternative, upon its presumed-to-conform list, *see* Federal Presumed to Conform Actions Under General Conformity, 72 Fed. Reg. 41,565, 41,578 (2007).

In applying the *de minimis* exemption the FAA did not directly calculate the level of emissions resulting from the project, but rather relied upon a fuel burn analysis that showed the redesign will "reduce fuel consumption by just over 194 metric tons per day" in the study area. Because reducing fuel consumption reduces aircraft emissions, the FAA concluded the redesign will reduce emissions in the study area. As the agency sensibly reasoned, a project that *decreases* emissions cannot cause a more than *de minimis* (if it could cause any) *increase* in emissions or be otherwise regionally significant; therefore, it did not conduct a conformity determination.

The petitioners' main contention is that, notwithstanding the result of the fuel burn analysis, the FAA had to calculate "the total of direct and indirect emissions" resulting from the project, 40 C.F.R. § 93.153(c)(1), and compare that total to thresholds identified by the EPA, *id.* § 93.153(b); *see also* Order 1050.1E app.A § 2.1c. According to the petitioners, the fuel burn analysis cannot show the redesign will reduce emissions because it does not account for the possibilities that the redesign will increase (a) emissions from airport ground equipment and (b) emissions of some pollutants due to changes in aircraft speed. Therefore, the petitioners argue, only by preparing an inventory of emissions could the FAA determine that emissions will not be significantly increased by the redesign.

Assuming the agency erred when it failed to inventory emissions, the petitioners still have failed to identify any way in which the error was or might have been harmful. *See* 5 U.S.C. § 706 ("due account shall be taken of the rule of prejudicial error" when court reviews agency action). As the FAA explains, by reducing idling and taxiing, and thus reducing the time aircraft run their engines at or near ground level, the redesign will reduce the emissions most likely to have an effect upon local air quality. The agency did not need to quantify the reduction in order to conclude the redesign was exempt from a conformity determination. We therefore deny the petitions for review with respect to the petitioners' core challenge to the fuel burn analysis. *See Olmstead Falls,* 292 F.3d at 271 (even if FAA erred, "the burden is on petitioners to demonstrate that [the FAA's] ultimate conclusions are unreasonable").*

* * *

We have considered and found no merit in the petitioners' other arguments. Based upon the foregoing opinion, the petitions for review are dismissed in part and denied in part. The pending motions for judicial notice and for supplementation of the administrative record are dismissed as moot.

So ordered.

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* The petitioners also argue the fuel burn analysis failed to show the redesign will reduce emissions in all relevant nonattainment and maintenance areas, *see* 40 C.F.R. § 93 153(b), but that argument is not properly before us because the petitioners failed to raise it until their reply brief, *see Sitka Sound Seafoods, Inc. v. NLRB,* 206 F.3d 1175, 1181 (D.C. Cir. 2000).

Record of Decision

New York/New Jersey/Philadelphia Metropolitan Area Airspace Redesign

[LOGO]

September 5, 2007 (Issue Date)
September 28, 2007 (Corrected Version Date)

U.S. Department of Transportation
Federal Aviation Administration

This is a copy of the corrected Record of Decision (ROD) for the New York/New Jersey/Philadelphia (NY/NJ/PHL) Metropolitan Area Airspace Redesign. Please take notice that this is a corrected ROD and all references should be made to this document. On September 5, 2007, the FAA signed and issued its ROD for the NY/NJ/PHL Airspace Redesign project. After signing the ROD, the FAA identified several items in the document that were omitted or incorrect due to editing mistakes. As a result, on September 18, 2007, the FAA posted an Errata Sheet on its website. For clarity and ease in reference, the FAA subsequently incorporated all the corrections from the errata sheet into this corrected ROD. No changes were made to the corrected version of the ROD other than what was identified in the Errata dated September 14, 2007. Please note, however, that page 56 of the corrected ROD states that there are "six" states within the Study Area. There are five states in the Study Area. If you would like to see a copy of the signed ROD as posted on September 5, 2007 or the Errata Sheet, both documents are available on the

FAA's Airspace Redesign website, www.faa.gov/nynjphl_airspace_resdesign

ERRATA

The following errors were identified in the Final Environmental Impact Statement (FEIS) following printing and distribution of the document.

1. FEIS ES-1, footnote 1 provides an incorrect reference to NEPA. The correct cite is 42 U.S.C. §4321 et. seq.

2. FEIS 2-1 references the relevant CEQ regulation as 40 CFR 1502.1(c). The text should be revised to reference 40 CFR 1502.14(c).

3. FEIS 3-1, footnote 1 references June 8, 2004 version of FAA Order 1050.1E. Correct reference is FAA Order 1050.1E Change 1 (March 20, 2006).

4. FEIS at 5-136 incorrectly references the cumulative impact discussion as Section 4.17 of the FEIS. The cumulative impact discussion is set forth in the FEIS at Section 4.18.

5. FEIS Chapter 7 (List of Acronyms, Abbreviations and Glossary of Terms in this EIS) inadvertently omits "ADD Average Annual Day" and "ADT Airspace Design Tool." These abbreviations and their meanings should be added into the list.

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I. Introduction

This Record of Decision (ROD) represents the culmination of over nine years of study and evaluation by the FAA to address congestion and delays at some of our nation's busiest airports. This document sets forth the agency's final decision to approve the project to redesign the airspace in the New York/New Jersey/Philadelphia (NY/NJ/PHL) Metropolitan Area. This Airspace Redesign Project is critical to enhance the efficiency and reliability of the airspace structure and the Air Traffic Control (ATC) system for pilots, airlines, and the traveling public. It is needed to accommodate growth while enhancing safety and reducing delays in the NY/NJ/PHL Metropolitan Area. Most importantly, the Airspace Redesign Project modernizes the structure of the NY NJ PHL air traffic environment in an environmentally responsible manner, and lays a foundation for achieving the Next Generation Air Transportation System in 2025. By 2011 this project is predicted to reduce the number of people exposed to noise above 45 dB DNL noise levels by 619,023 people, reduce fuel burn and emissions by the airlines, and reduce delays by 20%.

This ROD is based upon an Environmental Impact Statement (EIS) prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, as implemented by Council on Environmental Quality (CEQ) regulations, 40 C.F.R. 1500 *et seq.*, and FAA Order 1050.1E Change 1, Policies and Procedures for Considering Environmental Impacts. In this document, the FAA discusses the reasons it decided to undertake the Airspace Redesign project, the alternatives it considered in accomplishing its objectives, and the environmental impacts including mitigation of the alternatives it considered. This ROD includes additional information about steps taken to assure compliance with Department of Transportation Section 4(f), Section 106 of the National Historic Preservation Act, and Section 7 of the Endangered Species Act. Finally, the ROD contains a discussion of the selected project and the reasons for its selection.

After a careful consideration of all the available information, the FAA has decided to select the mitigated Preferred Alternative, known as the Integrated Airspace Alternative with Integrated Control Complex (ICC). The selected project consolidates many sectors of airspace under one Air Route Traffic Control Center (Center) and represents an innovative approach to airspace design in the NY/NJ/PHL area. The ICC uses of the 3 nautical mile separation criteria for flights in terminal airspace rather than the standard 5 mile criteria for en route airspace over a larger geographic area and up to 23,000 feet above mean sea level in some areas. The airspace will incorporate the sectors of airspace currently handled by the NY Terminal Radar Approach Control facility (TRACON) and the NY Center as well as some handled by the Washington and Boston Centers.

In addition to reconfiguring the airspace to implement the selected project the FAA will take several other direct actions to take advantage of improved aircraft performance and emerging air traffic control

(ATC) technology. As part of the selected project the FAA will design new and modified ATC procedures, modify multiple departure gates and add arrival posts, and departure headings. Mitigation measures include use of fewer dispersal headings at times of lower volume, use of continuous descent approaches, and raising arrival altitudes.

The selected project will require installation of additional equipment in FAA facilities to provide a common automation platform and communications network. However, it does not require any external physical changes to existing facilities, construction of new facilities, or local or state actions. Although the nomenclature "Integrated Airspace Alternative with Integrated Control Complex (ICC)" might suggest otherwise, the shared platform needed for the ICC can be established within existing facilities. The proposed replacement of the NY TRACON building would facilitate implementation of the ICC, however the TRACON replacement project has independent utility. Approval of the Airspace Redesign project does not depend upon replacement of the TRACON. Therefore, the selected project requires no physical alteration to any environmental resource or permits/licenses. Additionally, the Airspace Redesign does not require changes to any Airport Layout Plan.

II. Background

We know from experience and from economic studies how vital Newark Liberty, La Guardia, Kennedy and

Philadelphia Airports are to the region. Domestic air carriers have built thriving international hubs at three of these airports, connecting their international services to a network of domestic routes that allows service to even more international locations. Foreign air carriers provide non-stop service to destinations as close as Toronto, and as far away as Singapore. Activity by low-cost carriers continues to grow at these airports, and the traveling public in the area continue to have an unparalleled choice of non-stop service to cities around the world. As this aviation growth so essential to the region was happening, we made the airplanes quieter, and minimized their impact upon people living below, but we did not make more efficient use of the sky above. It is the FAA's judgment that the continued health of the aviation industry is dependent upon the modernization actions contained in the preferred alternative as mitigated, that will bring 21st century efficiencies to this vital component of the region's economy.

It is often said that the airspace in the New York/New Jersey/Philadelphia area is some of the most complex anywhere in the world. Throughout the EIS and in other parts of the administrative record, there are many charts and diagrams using the latest graphic technology to depict flight paths, arrival fixes, departure gates and the whole panoply of air traffic concerns in the region. Even these visual images, though more effective than words, fail to depict fully the complexity and interdependences that these different procedures have on each other. One way to grasp the complexity of the problem and the delicacy of the limited options available as potential solutions is to observe, on a delayed but real time basis, the radar tracks of aircraft landing and departing at Newark Liberty, La Guardia, Kennedy, and Philadelphia, over the Internet. For the New York/New Jersey area, the best platform is www4.passur.com/lga.html set to a 40 mile range, and for Philadelphia, the helpful website is www4.passur.com/phl.html. Observers can see, for example, how only a few miles separates the streams of arrivals at Newark and La Guardia, how southbound La Guardia departures are "climbed over" Newark Arrivals, and how the approach path to La Guardia can depend in part on runway use at Kennedy. Throughout all of this, the FAA's primary goal is one of safety, which is why there are so many delays using today's air navigation system in this airspace.

The basic air traffic environment for the New York/New Jersey/Philadelphia (NY/NJ/PHL) Metropolitan Area airspace was designed and implemented in the 1960s. While FAA made some adjustments to that airspace in the mid-1980's, as part of the Expanded East Coast Plan, the basic structure of the NY/NJ/PHL airspace has remained largely the same since the 1960s, in contrast, the use of the airspace and the Air Traffic Control system has changed significantly. The volume of air traffic has increased significantly since the 1960s, as has the use of smaller and regional jet aircraft in the ATC system. Additionally, the NY/NJ/PHL airspace has seen radical growth at airports that once had lower volume, such as Newark Liberty International Airport. The basic structure of the NY/NJ/PHL airspace, however, has essentially remained the same and has not been adequately modified to address changes in the aviation industry, including increasing traffic levels and use of new types of aircraft. Therefore, the NY/NJ/PHL Airspace Redesign is needed to accommodate growth while maintaining safety and mitigating delays, and to accommodate changes in aircraft fleet mix using the system (e.g., increased use of smaller and regional jet aircraft). The purpose of the Airspace Redesign is to increase the efficiency and reliability of the airspace structure and ATC system to accommodate growth while enhancing safety and reducing delays in air travel.

As the agency responsible for managing the National Airspace System (NAS), the FAA continuously seeks ways to control air traffic more efficiently. In 1998, the FAA Administrator chartered the National Airspace Redesign as the primary means of modernizing the nation's airspace. The National Airspace Redesign was to take advantage of opportunities arising from new technologies, new aircraft equipage, improved infrastructure, and procedural developments to enhance safety and efficiency. From the beginning, the importance of the New York/New Jersey Philadelphia area was recognized. This airspace formed the northeast corner of the "Eastern Triangle" where the first redesign efforts were focused.

The current delay performance of the airspace around the New York/New Jersey and Philadelphia Metropolitan Areas illustrates the need for redesign. The Bureau of Transportation Statistics collects information on major airport on-time arrival performance. For the first quarter of 2007, out of their list of 32 major airports[1],

- Newark was the top-delayed, with 55% on time performance;
- LaGuardia was second from the top, 58% on time performance;
- JFK was fourth from the top, 60% on time performance;
- Philadelphia was fifth from the top, 65% on time performance.

The only airport in the top five as of the first quarter of 2007 that is not in this study area is Chicago-O'Hare International Airport. Airports in the NY/NJ/PHL Metropolitan Area are routinely among the top 10 most delayed airports in the nation. Of all the factors in the system that can cause delays, these airports have only one in common. Some are dominated by one or two carriers and others are not. Some have many foreign airlines, others have few. Some support hub-and-spoke operations and others do not. Some have very large aircraft, others have mostly smaller aircraft. Some are large, with long taxiways, others are small and cramped. At some, the traffic has grown substantially in recent years, at others it has not. The thing these airports have in common is the airspace used by their arrivals and departures. To solve the delay problem, the airspace must be addressed.

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[1] http://www.bts.gov/programs/airline_information/airline_ontime_tables/2007_03/html/table_04.html

The Study Area for the project consists of the geographic area in which natural resources and the human environment are potentially affected by the proposed action, reasonable alternatives, and proposed mitigation. The Study Area was defined to include the areas underlying proposed changes to aircraft routes below 14,000 feet above mean sea level (MSL). According to FAA Order 1050.1E, the altitude ceiling for noise environmental considerations regarding airspace studies is 10,000 feet above ground level (AGL). The point at the highest altitude of the area where proposed airspace changes would occur was Hunter Mountain, New York at 4,000 feet above MSL. As a result, the overall altitude ceiling of the Study Area was 14,000 above MSL (resulting in 10,000 feet AGL). The Study Area includes the entire state of New Jersey, and portions of Connecticut, Delaware, New York, and Pennsylvania, an area of approximately 31,180 square miles. Section 3.1.1 of the Final EIS contains a more specific description of the Study Area.

The Study Area contains numerous public and privately owned airports. It would have been extremely difficult and unwieldy to include all of the airports in the Study Area in the analysis. The airspace design planning and environmental review process focused heavily upon the eight airports that were likely to be most affected by proposed airspace changes. These are: LaGuardia Airport (LGA), John F. Kennedy International Airport (JFK), Newark Liberty International Airport (EWR), Teterboro Airport (TEB), Philadelphia International Airport (PHL), Morristown Municipal Airport (MMU), Islip Long Island MacArthur Airport (ISP) and White Plains/Westchester County Airport (HPN). Airports that had more than 20 Instrument Flight Rule (IFR) operations on an average day were also included in the focused analysis. Airports with fewer than 20 IFR average annual day operations would have little impact on design elements or noise impacts in the study area. The thirteen additional airports that were included in the focused analysis are:

- Allentown/Lehigh Valley International (ABE)
- Atlantic City International (ACY
- Bridgeport/Igor I. Sikorsky Memorial (BDR)
- Caldwell/Essex County (CDW)
- Westhampton Beach/The Francis S. Gabreski (FOK)
- Linden (LDJ)
- Newburgh/Stewart International (SWF)
- New Haven/Tweed-New Haven (HVN)

- Northeast Philadelphia (PNE)
- Republic (FRG)
- Trenton/Mercer County (TTN)
- Wilmington/New Castle County (ILG)
- McGuire Air Force Base (WRI)

To plan airspace redesign, the FAA undertook an extensive study. Technical specialists with in-depth knowledge of regional ATC issues evaluated the existing airspace structure, ATC procedures and routes, and the interaction of local air traffic with the NAS as a whole. The result of this team's effort is set forth in the EIS and supporting documentation in the administrative record.

Implementation of the Selected Project

This redesign project is very large and complex. We will begin implementation as soon as practicable. Implementation of the selected project is estimated to take five years. The implementation of the selected project contains several qualitatively different stages.

The first stage involves elements of the selected project that do not require large-scale changes to other parts of the system. These items may be implemented without changes to the current airspace structures or operations of neighboring facilities.

- Right turns for departures off Runway 31R at JFK

- Departure dispersal headings at EWR, PHL and WA
- RNAV overlay procedures for TEB departures and approaches
- RNAV overlay for PHL river visual approach
- Develop an additional parallel airway to Jet Route 130
- A third westbound departure fix for PHL
- RNAV overlay for LGA Localizer Type Directional Aid (LDA) approach to Runway 22
- RNAV fix on the VOR 13L/R and 13L/R visual approaches to JFK

The next stage of implementation entails the integration of the terminal and en route airspace. At some point in this phase, we will address the NY TRACON and NY Center facility airspace structure will be addressed. This phase also concerns no change to the current airspace structures or operations of neighboring facilities. Aspects of the second phase include:

- Expanding the use of terminal separation rules
- Expanding the west gate for NY departures
- Opening the west gate for JFK departures

- Allowing stacked departures at the departure fixes
- Providing flexible use of the arrival airways
- Establishing a new arrival route into PHL

The next stage requires changes at other facilities, such as resectorization or shifting boundaries, but no changes to the current operational structure.

- Adding a third airway to the north gate

The remaining stage of implementation requires changes at facilities. This may include transfer of sectors as well us operational changes for the neighboring facilities. Aspects of the final stage of implementation include:

- Creating a new jet airway for departures to the west
- Enabling dependent instrument arrivals to the parallel runways at EWR and the required shift of the arrival streams into the NY/NJ area
- Creating a south gate for departures out of the NY/NJ area

III. Purpose and Need

The FAA's first consideration and highest priority in defining the Purpose and Need for any proposed action is to serve the public interest by exercising its authority to assign, maintain, and enhance safety and security of the national airspace (49 U.S.C. §40101(d)). The FAA also has the statutory responsibility to manage the use of navigable airspace to assure safety and efficiency. (49 U.S.C. §40103).

A. Need for the Project

As noted, congestion and delays at airports in the NY/NJ/PHL Metropolitan Area are some of the worst in the country and aircraft operations are forecast to continue to grow. In considering the need for an Airspace Redesign project, the FAA looked at the increase in traffic levels, safety, delays, and changes in the types of aircraft using the NAS.

1. Increased Aircraft Traffic Levels

Aircraft operations in the Study Area are growing despite the operational delays experienced by aircraft operators. Instrument operations[2] at most of the major airports in the Study Area have increased. See FEIS, Table 1-3. Dramatic increases have occurred at Newark (EWR), Philadelphia (PHL), and Teterboro (TEB) and these increases are forecast to continue. Current traffic at JFK has increased 44% from the year of 2004.[3] Inefficiencies due to the inherent limitations of the existing airspace design, including route structure and ATC procedures, will be exacerbated by growth in air traffic operations. For example, in 2006 the NY TRACON handled 2,090,977 operations and is expected to handle 2,400,143 operations by 2011. FEIS at 1-23. As traffic increases, the system will become increasingly inefficient and unreliable (unpredictable in terms of scheduling) in order to ensure safe operations. The following inefficiencies must be addressed in order to accommodate growth that will occur with or without the project:

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[2] Commercial operators and operators of certain large aircraft, e.g., business jet aircraft, are required to operate under Instrument Flight Rules. Additionally, many aircraft that are not required to operate under IFR choose to do so because of the air traffic services it provides.

- Access to en route airways is restricted by downstream congestion.
- EWR and LGA final approach courses are restricted and do not allow for optimal aircraft sequencing to the runways.
- Airspace sectors are currently associated with specific airports which cause an unbalanced use of the airspace, thus requiring excessive communications between controllers.
- Westbound departures from JFK create delays for westbound departures from EWR and LGA due to in-trail sequences.

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[3] FAA OPSNET Data

- NY Metropolitan Area departures to north departure gate fixes are restricted due to inefficient airspace allocation.
- Arrivals to PHL are directed to lower altitudes to maintain separation from arrivals to the NY Metropolitan Area.

The airspace must accommodate growth in air traffic. To accommodate growth, the enhanced airspace system must maintain the current high level of safety and mitigate delays.

2. Safety

As noted above, the FAA has the statutory responsibility to control the use of navigable airspace in the interest of safety and efficiency. The following safety-related inefficiencies currently exist in the NY/NJ/PHL Metropolitan Area airspace:

- Arrivals to Westchester County Airport (HPN) from the south cross several traffic flows and create unnecessary complexity.
- Arrivals for airports to the north of the Study Area must be assigned high altitudes to avoid conflicts with the NY Metropolitan Area traffic. This creates the need to cross several traffic flows in a short distance while descending.

- Traffic to PHL, Islip (ISP), and their associated satellite airports[4] is restricted to intersecting courses in narrow corridors of airspace.

- Airspace restrictions require incremental changes in altitude for arrivals and departures causing radio frequency congestion associated with additional control instructions.

- Departures from EWR to the Caribbean and South America must climb through PHL and Atlantic City (ACY) traffic resulting in traffic conflicts.

- High-performance general aviation aircraft operating out of satellite airports are restricted to less efficient altitudes below major airport flows. This creates increased controller workload to resolve traffic conflicts.

- Departures from ISP and ISP satellite airports to the south/southwest conflict with arrivals to the NY Metropolitan Area and northeast-bound departures from PHL.

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[4] PHL satellite airports include Chester County, Brandywine, New Garden, Wings Field, Northeast Philadelphia, Doylestown, Pottstown Limerick, and Capital City Airports. ISP Satellite airports include Brookhaven, Spadaro, Francis S. Gabreski, Republic, and Montauk Airports. Source: NPIAS 2005-2009.

Addressing the safety-related inefficiencies will contribute to enhanced safety in light of the growing traffic.

3. Delays

Delays affect aircraft operators with increased fuel use and operating costs, which are passed on to consumers in the form of higher ticket prices. Delays also impact the public by causing inconveniences with late arrivals, missed connections, and cancelled flights. The public expects a stable and reliable aviation system that supports on-time flights. People have dramatically increased their use of aviation as a mode of travel and increasing delays continue to receive much public attention. Delays are expected to increase in the future as traffic levels continue to grow. These issues prompted the airline industry and the Federal government to search for ways to reduce delays.

The current basic airspace structure was designed and implemented in the 1960s, based on the interaction of independent TRACONs and several overlying Centers.[5] Today, the airspace system cannot efficiently handle the current and projected levels of traffic within the NY/NJ/PHL Metropolitan Area. In 1988, when the last large-scale airspace changes were made, the New York TRACON alone managed approximately 1,710,000 operations annually. In 2006, the New York TRACON handled 2,090,977 operations. By the year 2011, the traffic level is projected to increase to 2,400,143[6] annual operations. The increasing traffic levels result in excessive user delays and inefficient routes. Between 2000 and 2006, total aircraft delays at TRACONs and Centers in the Study Area have increased dramatically. In addition, airports in the NY/NJ/PHL Metropolitan Area are routinely among the top 10 most delayed airports in the nation, due in part to the inefficiencies of the current airspace structure.

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[5] See FEIS sections 1.2.1-1.2.3 for a discussion of the NAS and a description of the types of ATC facilities.

The following are among the causes for delay in the existing NY/NJ/PHL Metropolitan Area airspace:

- Aircraft departing from the NY Metropolitan Area to the Washington Metropolitan Area are sequenced onto the same routes as long-haul destinations (e.g., Los Angeles).
- Entering and exiting holding patterns in en route airspace are inefficient because more restrictive en route separation rules are used and require extensive coordination.
- Chicago O'Hare International Airport (ORD) is one of the busiest airports in the nation and experiences significant delays. Because of the inflexibility of the

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[6] FAA APO Terminal Area Forecast Issued December 2006.

current airspace structure, the in-trail restrictions placed on the ORD departures end up affecting all of the westbound departures from the New York/ New Jersey/Philadelphia metropolitan areas routed over the same departure fix regardless of the destination airport.

- Aircraft departing from LGA and HPN have poor access to departure routes during severe weather conditions.
- Severe weather that occurs during periods of heavy traffic reduces flexibility for aircraft rerouting resulting in delays.
- During peak demand periods individual arrival fixes can become saturated while other arrival fixes are under used.

The Airspace Redesign is needed to address the system inefficiencies that cause delay.

4. Changes in Type of Aircraft

The mix of types of aircraft used by domestic air carrier and general aviation operators has changed rapidly over the past decade. Regional airlines have replaced propeller-driven aircraft with regional jets in response to consumer preferences and to begin service to new markets. Mainline air carriers have transitioned service on some routes from larger narrowbody aircraft to smaller regional jets because of the lower operating costs for regional jets. The net effect of these changes is that the same numbers of passengers are being transported with a higher number of operations by smaller aircraft. Additionally, there has been an increase in the use of private jets. The convenience of business jets, e.g., avoiding security delays and freedom to set one's own flight schedule, has encouraged many corporate travelers to increase their use of business jets. Fractional ownership programs have put the ability to use business jets into the hands of many more people. These factors have placed new strains on the NAS by increasing the number of high performance jets vying for the same routes and altitudes. Previously there were substantial numbers of propeller-driven aircraft operating at lower altitudes on separate routes. This increasing number of jets has resulted in a saturation of jet routes.

B. Purpose of the Project

The purpose of Airspace Redesign is to increase the efficiency and reliability of the airspace structure and ATC system, thereby accommodating growth while enhancing safety and reducing delays in air travel. By taking advantage of new technologies and responding to new trends, the Airspace Redesign will increase efficiency and the reliability of the air traffic system.

A nationwide study conducted by Logistics Management Institute (LMI) in 1999 found that air traffic congestion nationwide could cost 46 billion dollars to the nation's economy in 2010 because of increased travel time. The nationwide change in travel time that was anticipated for 2010, converted to its equivalent in terms of the metrics used for this study, is approximately 3 minutes per flight. This includes costs to airlines, loss of service to people who wish to travel, and over 200,000 lost jobs in aviation and other industries. The NY/NJ/PHL airspace will handle 15-20% of all the air traffic in the nation in 2011. This airspace redesign is concerned with removing inefficiencies. Enhancing efficiencies would, conservatively estimated, yield benefits to airlines, passengers, and businesses of $7 billion to $9 billion in 2011.

Air traffic delays also increase costs associated with providing air traffic control services. Additional air traffic control staffing is needed during periods when there are air traffic delays. Analyzing FAA's delay summary report over the past two years for JFK, LGA, EWR and PHL, it is estimated that delays at these four airports alone cost $30.5 million.

The Airspace Redesign is also needed to accommodate changes in the fleet mix using the system (e.g., increasing numbers of smaller and regional jet aircraft). These needs are tied to the fundamental purpose of the Airspace Redesign: to increase the efficiency and reliability of the airspace structure and ATC system in the study area.

Noise reduction is not a Purpose and Need for Airspace Redesign. In the case of the national airspace redesign (NAR), reduction of noise is not appropriately identified as a Purpose. Airspace redesign can not remedy noise problems for the 29 million people living in the study area. In fact, for many people within 10 to 15 miles of the airport, depending on where they live in relation to the runway alignments, there may be little or no mitigation possible and no noise benefits possible. Additionally, in heavily populated areas, such as those surrounding Philadelphia, Newark, LaGuardia, and Kennedy Airports, mitigation of noise in one neighborhood usually means moving the noise to another neighborhood, not moving it to an unpopulated area. Moreover, it is unclear how noise reduction should be defined where noise is predicted to increase and decrease over large populated areas experiencing different noise levels. Although reduction of noise is not included in the Purpose and Need, the FAA recognizes that aircraft noise was the major issue raised in agency and public comments throughout the EIS process. During the scoping meetings held in 1999 and 2001, the FAA committed to using the various techniques to reduce aircraft noise and other potential environmental impacts. These techniques included increasing altitudes, dispersing or concentrating tracks where appropriate, reducing flying time, and routing aircraft over less noise-sensitive areas where feasible.

IV. Alternatives Analysis

CEQ regulations require the FAA to "rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated." 40 C.F.R. §1502.14(a). In addition to a No Action alternative, as required by the CEQ regulations, 40 C.F.R. §1502.14(d), the FAA developed five categories of alternatives and evaluated them against the purpose and need for the project. Those categories of alternatives that did not satisfy the purpose and need for the project were not considered reasonable alternatives and were eliminated from detailed analysis. The categories of alternatives considered in the initial screening of alternatives in the EIS included the following:

- Alternative Modes of Transportation and Telecommunication – Using alternative modes of transportation and communication including travel by rail, bus, and automobile, as well as the use of telecommunication methods such as videoconferencing.

- Changes in Airport Use – Moving operations to satellite airports or improving infrastructure of existing airports.

- Congestion Management Programs – Regulating air travel demand by limiting flight operations. Three major congestion management techniques are administrative approaches, voluntary depeaking, and market based-approaches.

- Improved Air Traffic Control Technology – Using newly developed air traffic control technologies.

- Airspace Redesign Alternatives – Creating restructured airspace routes, altitudes, and sectors.

A. Alternative Categories Eliminated from Detailed Study

In determining the reasonable alternatives for the project, the FAA looked at the categories of alternatives to determine whether each would meet the purpose and need for the Airspace Redesign project. Those categories of alternatives that did not meet the purpose and need for the project were eliminated from detailed study in the EIS. Four of the categories of alternatives, Alternative Modes of Transportation and Technology, Changes in Airport Use, Congestion Management Programs, and Improved Air Traffic Control Technology, were eliminated because they did not meet the purpose and need of the Airspace Redesign project. While the Alternative Modes of Transportation and Technology (Section 2.3.1), Changes in Airport Use (Section 2.3.2), Congestion Management Programs (2.3.3), and Improved ATC Technology (2.3.4) categories of alternatives may have had the potential to decrease delays they would not have addressed the inefficiencies in the current NY/NJ/PHL Airspace. Because these alternatives did not meet the purpose and need for the Airspace Redesign project, they were not considered reasonable alternatives and were not carried forward for detailed environmental analysis.

B. Alternative Concepts Considered for Detailed Analysis

Of the five categories of alternatives, one, Airspace Redesign, was found to meet the purpose and need for the Airspace Redesign project, and was carried forward for detailed analysis in the EIS. Additionally, as required by the CEQ regulations, the No Action Alternative was carried forward for detailed study.

Airspace in the NY/NJ/PHL Metropolitan Area could be redesigned by changing or enhancing departure gates, arrival posts, routes, and/or the airspace boundaries of the various ATC facilities. For the Study Area under examination, new departure gates and arrival posts would permit the development of new routes in the airspace structure. Expanding the boundaries of the terminal airspace environment would permit less restrictive separation rules to be used in a larger volume of airspace. These actions have the potential to meet the need to accommodate growth in air traffic levels while maintaining safety and mitigating delays. New routes could add efficiency by reducing delays and providing more direct routings; this has the potential to achieve the purpose of increasing the efficiency and reliability of the airspace structure and ATC system.

The FAA began consideration of airspace and ATC changes by analyzing potential airspace redesign alternatives for the NY/NJ/PHL Metropolitan Area airspace. A working group was formed to design and evaluate conceptual airspace alternatives. The working group included representatives from the affected facilities: NY TRACON, Philadelphia TRACON, New York Center, Boston Center, and Washington Center. The working group also included representatives from ATC facilities outside the Study Area to ensure the alternatives developed would be compatible with airspace requirements in those facilities. Also as part of the development of redesign concepts, input from external sources such as airlines, airport operators and the public was solicited and considered.

The working group developed assumptions and objectives for airspace redesign alternatives. The assumptions included point-to-point navigation and use of terminal separation standards over a larger airspace area. The objectives that guided the development of airspace redesign concepts were:

- Reduce congestion in airspace sectors
- Shorten routes
- Segregate routes for aircraft with dissimilar operating characteristics (i.e., large aircraft from small aircraft)
- Impose fewer climb restrictions on departing aircraft and keep arrivals higher longer
- Allow aircraft to operate at higher, more fuel-efficient altitudes for longer periods
- Use area navigation (e.g., RNAV, GPS, etc.)

- Create a flexible airspace structure
- Accommodate projected growth
- Reduce environmental impacts, where possible

Using the assumptions and objectives, the working group developed broad concepts that met the design objectives: the Four Corner-Post, Modifications to Existing Routing, a Clean Sheet approach. Additionally, the working group considered an Ocean Routing concept submitted by New Jersey Citizens for Environmental Research (NJCER) at the request of the New Jersey Coalition Against Aircraft Noise (NJCAAN).

After further consideration, the working group determined that the Four Corner-Post was a concept ill-suited to the NY/NJ/PHL Metropolitan Area airspace (Section 2.4.1.1) and was eliminated from further consideration because it did not meet the purpose and need of the airspace redesign project. Two of the remaining design concepts, modifications and clean sheet, would meet the purpose and need and were studied in detail in the EIS. Although Ocean Routing did not meet the purpose and need, it was studied in detail in order to address the long-standing concerns of NJCAAN.

Modifications to Existing Routing

This concept involves modifying the current route and procedures to improve efficiency in the current airspace.

Ocean Routing

This alternative routes all departing flights from EWR over the Raritan Bay to the Atlantic Ocean before turning them back over land to head to their departure gates. The Ocean Routing alternative does not meet the purpose and need for the airspace redesign project. It is designed is to reduce noise impacts on the citizens of New Jersey, and would not increase the efficiency and reliability of the NY/NJ/PHL Metropolitan Area airspace. Because all EWR departures would use the same departure route, this alternative would inherently result in a large increase in airport departure delay. While Ocean Routing does not meet the purpose and need for the project, the FAA elected to retain it for detailed analysis because of the long-standing concerns of NJCAAN.

Clean Sheet Concept

The Clean Sheet approach began as an attempt to redesign the airspace in an atmosphere independent of existing routes. Designers were given a clean sheet of paper and were asked to design the most efficient airspace structure for the study area without reference to current procedures, departure gates, and arrival posts. It was initially explored as a concept that would be developed within the boundaries of the current NY Center and NY TRACON airspace. Any changes within this airspace would not require changes in adjacent Center's or TRACON's airspace. The working group discovered that the constraints of the NY Center's and NY TRACON's airspace boundaries did not facilitate the use of the clean sheet approach. This alternative, therefore, evolved into an integrated airspace concept that used some of the initial design elements of the Clean Sheet "Area Concept," and then added elements that more efficiently integrated the functions of the NY TRACON and NY Center to operate more seamlessly in either a standalone or consolidated manner. Therefore, a detailed airspace redesign alternative was developed based on the Integrated Airspace Concept.

C. Alternatives Analyzed in the EIS

After the working group validated the airspace redesign concepts, it developed detailed alternatives for the Modifications and Integrated concepts. The detailed alternative for Ocean Routing was developed by NJCER. The working group also developed criteria to evaluate the degree to which the alternatives met the purpose and need and to permit the comparison of the alternatives to each other. These criteria fall into two groups, operational viability and operational efficiency.

The operational viability criteria consider whether a particular airspace redesign is workable and thus, safe. The criteria include:

- Reduce airspace complexity
- Reduce voice communications

The operational efficiency criteria consider how well a particular design works. The criteria include:

- Reduce delay
- Balance controller workload
- Meet system demands
- Improve user access to the system
- Expedite arrivals and departures
- Increase flexibility in routing
- Maintain airport throughout

1. The Alternatives

No Action Alternative

The No Action alternative represents all major traffic flows into and out of the Study Area in the study years 2006 and 2011 if no changes are implemented as a result of the Airspace Redesign project. The only major difference between this alternative and present day operations will be the type and quantity of aircraft operations. Under the Future No Action Airspace Alternative, the airspace will operate as it did during existing or baseline conditions (2000), with the exception of two procedural changes (i.e., the Dual Modena and the Robbinsville-Yardley Flip-Flop) that have been implemented and have independent utility with regards to the Airspace Redesign, see Section 1.2.6. As these changes have been implemented, they are included as part of the Future No Action Airspace Alternative. Figures 2.1 through 2.10 in Appendix A to this ROD identify existing major routing and flow patterns associated with the Future No Action Airspace Alternative.

Modifications Alternative

The Modifications alternative includes minor modifications to the current airspace and routing, improving operations as much as possible within the limitations of the current ATC facility boundaries. Figures 2.11 through 2.14 in the Final EIS identify major routing changes associated with the Modifications alternative. The table below summarizes the Modifications alternative.

Table 2.1

Summary of Modifications to Existing Airspace Alternative

Airport	Changes from Future No Action
JFK	No Changes
LGA	South departure gate shifted to the northwest New departure headings for aircraft departing Runway 4 to the North departure gate

	New propeller aircraft procedures departing Runway 13 to West departure gate New departure headings for propeller aircraft departing Runway 13 to the South departure gate New distant procedures for aircraft departing Runways 4 and 13 to the South departure gate New departure headings for aircraft departing Runway 4 to the East departure gate
EWR	South departure gate shifted to the northwest New procedures for aircraft heading to new South departure gate New departure headings from all runways to all gates New departure headings off Runways 4L dependent on TEB Runway 6 New departure headings off Runways 22R dependent on TEB Runway 11
TEB	South departure gate shifted to the northwest New distant procedures for aircraft heading to shifted South departure gate
HPN	South departure gate shifted to the northwest New distant procedures for aircraft departing to the south gate
PHL	East departure gate shifted further east New procedures for aircraft heading to new East departure gate New departure headings for aircraft heading to the North, East, West, and South departure gates

Ocean Routing Alternative

The Ocean Routing alternative includes changes at EWR, LGA, and JFK and routes all EWR departing flights over the Raritan Bay to the Atlantic Ocean before turning them back over land to head to their departure gates. Figures 2.15 through 2.18 in the Final EIS identify major routing changes associated with the Ocean Routing alternative. The table below summarizes the Ocean Routing alternative.

Table 2.2

Summary of Ocean Routing Airspace Alternative

Airport	Changes from Future No Action
JFK	Shifted West departure gate New procedures for aircraft heading to the West departure gate Split of the FNA Ocean departure gate into the Ocean and South departure gates New procedures for aircraft heading to the South departure gate South arrival post shifted to the east New procedures for aircraft arriving from the South arrival post New procedures for aircraft arriving from the North arrival post
LGA	New procedures for aircraft heading to the North departure gate

EWR	Shifted West departure gate New procedures for aircraft heading to the West departure gate Shifted South departure gate New procedures for aircraft heading to the South departure gate New procedures for aircraft departing Runways 22L/R to the North departure gate New procedures for aircraft departing Runways 22L/R to the East departure gate
TEB	No Changes
PHL	No Changes

Integrated Airspace Alternative

The Integrated Airspace alternative combines the New York TRACON airspace with portions of the surrounding Centers' airspace, permitting more seamless operations. The Integrated Airspace Alternative can be accomplished either with existing standalone facilities or in a consolidated facility. The key component of the Integrated Airspace alternative is a common automation platform.[7] Using existing facilities, airspace would be reallocated among the facilities in order to facilitate a more seamless operation. At the time the Airspace Redesign project was begun, the FAA had not yet decided to approve an Integrated Control Complex (ICC) concept.

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[7] A common automation platform includes shared displays on screens, radar data processing and presentation, and communication.

As a result, the Integrated Airspace alternative was designed with two variations. The initial phase (2006) is the same for both variations because an ICC will not exist in 2006. It involves modifications to a departure gates as well as additional diverging departure headings, however, airspace facility boundaries would not change. In the second phase (2011) there are two variations:

- Without ICC, which will integrate the airspace to the extent possible without the common automation platform includes expanded use of terminal separation, reallocation of airspace sectors and new technologies.
- With ICC, which involves full airspace integration includes multiple departure gates, additional arrival posts, and additional diverging departure headings.

Figures 2.19 through 2.22 in the Final EIS identify major routing changes associated with the Integrated Airspace alternative without ICC. The table below summarizes the Integrated Airspace alternative without ICC.

Table 2.3

Summary of Integrated Airspace Alternative Variation without ICC

Airport	Changes from Future No Action
JFK	No Changes
LGA	West departure gate extended to the north and to the south

	New procedures for aircraft heading to the West departure gate New departure headings for aircraft departing Runways 4 to the North departure gate New departure headings for aircraft departing Runway 4 to the East departure gate
EWR	New departure headings for all runways and all gates Procedures off Runway 4L dependent on TEB Runway 6 to West departure gates New procedures for aircraft heading to the West departure gate Procedures off Runway 4L dependent on TEB Runway 6 to North and East departure gates Procedures off Runway 22R dependent on EWR Runway 11 use Expanded West departure gate
TEB	West departure gate extended to the north and to the south New procedures for aircraft heading to the West departure gate New procedures for turboprop aircraft arriving from the northeast
HPN	West departure gate extended to the north and to the south
	New procedures for aircraft heading to the West departure gate
	New distant arrival procedures
PHL	New departure headings for aircraft heading to the North, East, West, and South departure gates

Figures 2.24 through 2.33 in Appendix A identify major routing changes associated with the Integrated Airspace alternative with ICC. The table below summarizes the Integrated Airspace alternative with ICC.

Table 2.4

Summary of Integrated Airspace Alternative Variation with ICC

Airport	Changes from Future No Action
JFK	North departure gate shifted 15 miles northeast New distant procedures for aircraft heading to the North departure gate West departure gate extended to the north and to the south New procedures for aircraft heading to the West departure gate Future No Action Ocean departure gate split into Ocean and South departure gates New distant procedures for aircraft heading to the Ocean departure gate New procedures for aircraft heading to the South departure gate North arrival post shifted five miles southeast New distant procedures for aircraft arriving from the North arrival post East arrival post shifted northwest New procedures for aircraft arriving from the East arrival post South arrival post shifted to the northeast

	New procedures for aircraft arriving from the South arrival post
LGA	East departure gate shifted east North departure gate shifted 15 miles northeast New procedures for aircraft heading to the North departure gate West departure gate extended to the north and to the south New procedures for aircraft heading to the West departure gate South departure gate shifted to the northwest New procedures for aircraft heading to the South departure gate North arrival post shifted 30 miles east New procedures for aircraft arriving from the North arrival post West arrival posts shifts to coincide with Future No Action South arrival post New procedures for aircraft arriving from the west to coincide with the South arrival post West arrival flow split into two arrival flows, one to the north and one to the south New departure headings for aircraft departing Runway 4 to the North departure gate New departure headings for aircraft departing Runway 4 to the East departure gate

EWR	New departure headings for all runways and all gates East departure gate shifted to the east New procedures for aircraft heading to the East departure gate North departure gate shifted to the northeast New procedures for aircraft heading to the North departure gate West departure gate expanded to the north and south New procedures for aircraft heading to the West departure gate South departure gate shifted to the southwest New procedures for aircraft heading to the South departure gate New Ocean departure gate New procedures for aircraft heading to the Ocean departure gate North arrival post moved to 50 miles north of EWR New procedures for aircraft arriving from the North arrival post West arrival post shifted to be near Greenville, NY West arrival flow split into two arrival flows, one to the north and one to the south New procedures for aircraft arriving from the South arrival post Use of both parallel runways for arrivals
TEB	Departure gates match those of EWR Integrated Airspace with ICC New distant procedures for aircraft heading to the North departure gate

	New distant procedures for aircraft heading to the West departure gate New distant procedures for aircraft heading to the South departure gate West arrival post shifted 15 miles south New procedures for aircraft arriving from the West arrival post New procedures for aircraft arriving from the West arrival post from the vicinity of Yardley, PA
HPN	North departure gate shifted 15 miles northeast New distant procedures for aircraft heading to the North departure gate West departure gate extended to the north and to the south New procedures for aircraft heading to the West departure gate South departure gate shifted to the west New departure procedures for aircraft departing to the south gate North arrival post shifted to the east New distant procedures for aircraft arriving from the north gate New distant procedures for aircraft arriving from the south
PHL	West departure gate expanded to the northwest New procedures for aircraft heading to the West departure gate East departure gate is shifted to the east New procedures for aircraft heading to the East departure gate West arrival post shifts to the northeast New distant procedures for aircraft arriving

	from the West arrival post New departure headings for aircraft heading to the North, East, West, Southwest, and South departure gates Additional route added to North arrival post

A summary of the comparison of the alternatives can be found below.

Table 2.6

Operational Comparison of Alternatives

(The most advantageous operational metric has been shaded and boldfaced)

Purpose & Need Evaluation Criteria	**How Measured**	**Alternative**				
		Future No Action	**Modifications to Existing Airspace**	**Ocean Routing Airspace**	**Integrated Airspace**	
					without ICC	**with ICC**
Reduce Complexity	Jet route Delays + time below 18,000 feet (minutes)	12	12	12	11	**10**
	Arrival Distance below 18,000 feet (nautical miles)	96	**95**	99	96	102
Reduce Voice Communications	Max Interfacility handoffs per hour	525	525	521	529	**382**
Reduce Delay	Traffic weighted arrival delay 2011 (minutes)	22.9	22.6	23.6	22.8	**19.9**
	Traffic weighted departure delay 2011 (minutes)	23.3	20.9	29.5	20.8	**19.2**
Balance Controller Workload	Equity of West gate fix traffic counts	0.37	0.37	0.37	0.34	**0.30**

Meet System Demands & Improve User Access to System	End of day's last arrival push (time)	23:54	23:54	23:54	23:54	**23:00**
Expedite Arrivals and Departures	Time below 18,000 ft (minutes)	18.5	**18.2**	18.8	18.2	18.6
	Change in route length per flight (nautical miles) (1)	0.0	0.0	4.5	**-1.2**	3.7
	Change in block time (minutes per flight) (1)	0.0	-0.9	3.9	-1.0	**-1.4**
Flexibility in Routing	Delay saved per flight per day (minutes)	0	0	0	0	**12.6**
Maintain Airport Throughput	Arrival Max Sustainable Throughputs	223	223	223	223	**238**
	Departure Max Sustainable Throughputs	238	239	221	240	**245**

Notes: (1) A negative value indicates a net decrease in the category.

Source: Operational Analysis of NY/NJ/PHL Metropolitan Area Airspace Redesign Alternatives, (MITRE Technical Report MTR 05W0000025, March 2005, Table ES-1. Summary of Operational Impacts, p. ix.).

V. Preferred and Environmentally Preferred Alternatives

At the time the Draft EIS was published, the FAA had not selected a preferred alternative. The FAA preferred to consider public and agency comments on the DEIS prior to identifying its preferred alternative. In March 2007, FAA announced the Integrated Airspace Alternative with ICC as its preferred alternative. This alternative was preferred because it best meets the purpose and need for the project: to improve the efficiency and reliability of the airspace thereby accommodating growth while enhancing safety and reducing delays. Table 2.6 provides an operational comparison among the alternatives. The Integrated Airspace Alternative in its ICC variation provides the best improvement in ten of the thirteen metrics that quantify each element of the purpose and need for the redesign. While the Modifications alternative and the Integrated Airspace alternative without ICC variation would provide marginal reduction in many metrics, the Integrated Airspace Alternative with ICC would provide substantial benefits. The metrics that relate most directly to user costs (delay, routing flexibility and block time) are only improved by the Integrated Airspace alternative with ICC. Ocean Routing would decrease the airspace efficiency and add complexity to the airspace, thus it does not meet the purpose and need for the project. Therefore, the Integrated Airspace Alternative with ICC is the preferred alternative.

After selecting the Integrated Airspace Alternative with ICC as the preferred alternative, FAA began the process of developing measures to alleviate, to the extent possible, the impacts associated with the preferred alternative. Mitigation measures are those designed to avoid, minimize, rectify, reduce, eliminate, or compensate for environmental impacts. Because the preferred alternative would result in significant noise and noise-related (environmental justice) impacts in some areas, mitigation measures were developed to reduce the noise impacts where possible. FAA considered mitigation for all areas, including areas that did not receive a significant or slight to moderate impact. FAA also considered mitigation to address long-standing issues that might be improved as a result of airspace redesign.

After the Draft EIS was published, FAA identified a number of potential mitigation measures for the project. Additionally, FAA considered all public comments that included potential mitigation measures, which numbered over 450. Many of the public mitigation comments focused on similar issues and techniques as those identified by the FAA. An initial screen was performed on each proposed measure. Some measures were immediately discarded because they presented operational or safety problems. Each remaining proposed mitigation measure was subjected to a two-step operational modeling. This modeling was both qualitative and quantitative. The two-step operational modeling identified whether a proposed measure was viable and the degree to which the proposed measure impacted the operational efficiency of the preferred alternative. In some cases a noise screen was applied to determine which measures provided the best alternatives for noise reduction. Details of this process can be found in Chapter 5 of the Final EIS.

FAA considered the environmental impacts of the preferred alternative with the mitigation that resulted from the screen. The results of those analyses, the Mitigation Report, were published in April 2007. FAA solicited comments on the Noise Mitigation Report including holding several public meetings. Mitigation measures were then incorporated into the preferred alternative resulting in the mitigated preferred alternative: the Integrated Airspace Alternative with ICC and mitigation measures.

The following mitigation measures have been identified as part of the selected project:

- HPN Departures – Departure routes shifted to the north shifted closer to the no action location
- LGA Departures – Departure headings reduced to two except during the morning push
- LGA Arrivals – Increased use of Localizer Directional Aid (LDA) arrival to Runway 22
- EWR Departures – Number of departure headings used based on demand; at

night use modified ocean routing procedure

- EWR Arrivals – Raised arrival altitudes for Runways 22L/R in the vicinity of Bergen County, New Jersey and Rockland County, New York; raised arrival altitudes for Runways 4L/R in the vicinity of Sussex and Morris Counties, New Jersey; use continuous descent approach (CDA) during nighttime hours for arrivals from the northwest and southwest
- PHL Departures – Use one departure heading for Runways 9/27 L/R during nighttime hours
- PHL Arrivals – Increased use of River Approach (visual) to Runway 9; use CDA during nighttime hours for arrivals from north, northwest, and southwest

The mitigated preferred alternative is also the environmentally preferred alternative. In 2006 it reduces the number of persons who would be significantly impacted by noise to 545 people near PHL. In 2011, the mitigated preferred alternative would result in no significant impacts. The mitigated preferred alternative is the FAA's selected project.

VI. Environmental Impacts and Mitigation

In accordance with the guidelines set forth in the CEQ regulations and FAA Order 1050.1E, Chapter 4 of the EIS describes the potential impacts of implementing the project. Potential impacts include both the direct and indirect effects of the proposed project and all reasonable alternatives. A total of nineteen impact categories were analyzed. The technical findings in the EIS provide federal decision-makers and officials, as well as the public, with an understanding of the potential effects of the project on the human, physical, and natural environment.

The potential impacts of the Airspace Redesign project were determined by comparing the projected future conditions without the project (Future No Action) with the projected future conditions for each action alternative. As discussed in section III above, the action alternatives analyzed for environmental impacts are: Modifications, Ocean Routing, and two variations of the Integrated Airspace, without ICC, and with ICC.

A. Study Years

The EIS used the year of 2000 as the baseline year for the analysis. The year 2000 was used for several reasons. First, when the EIS analysis began, the year 2000 was the most recent complete calendar year for which air traffic statistics were available. Additionally, at the time the EIS analysis began, 2000 was the last full robust year of air traffic activity prior to the aviation slowdown resulting from terrorist activities and economic down turns. Finally, a study of the scope and magnitude of the EIS takes a number of years to develop fully. The analysis, specifically the noise modeling for the Draft EIS, took approximately three and a half years to complete. Because of the time involved in performing the noise analysis, any baseline year would be several years in the past.

The years 2006 and 2011 were used as implementation years in the EIS. At the time the EIS analysis began, the FAA expected that if an action alternative were selected, implementation of the selected alternative would occur in stages. Some of the elements of an action alternative, for example using dispersal headings and transferring airspace from other air traffic facilities, could be implemented almost immediately, after training air traffic controllers. Because some elements of an action alternative could be implemented almost immediately and the Draft EIS was expected to be published in 2005, it was reasonable to assume 2006 as the first implementation year. Appendix B contains an analysis of forecast and actual traffic for 2006; the forecast was found to be reasonably close to the actual operations. The EIS is replete with references to 2006 as the first year in which this project would begin to be implemented. However, as a result of the extended comment period and the volume of public comments received, this proposed implementation date has been delayed by one year. In order to avoid confusion and the perception that this ROD addresses a proposal other than the one presented in the EIS, we have continued to refer to 2006 as the year of initial implementation.

B. Forecasts

The FAA developed forecasts of future aviation activity for the purpose of designing the detailed alternatives and analyzing the impacts of those alternatives. The FAA's Office of Aviation Policy and Plans (APO) develops and regularly updates Terminal Area Forecasts (TAF) for selected airports throughout the country. The TAF however does not provide sufficient detail required for environmental modeling. For example, the TAF does not provide aircraft type, destination, and time of day of operations. As a result a forecast of future IFR aviation activity in the Study Area was prepared for this project. The forecast developed for this project centers around IFR flights at the 21 airports on which this study focused. Specific forecasts were not developed for the remaining airports in the Study Area. Because there would be no change in procedures at those airports as a result of the project, specific forecasts were not needed for the operational modeling. FAA recognized that in order to accurately portray the noise exposure, IFR operations from the other airports in the Study Area must be included in the forecasts for the noise analysis. IFR flights through the study area at an altitude below 14,000 feet MSL were included in the noise analysis as overflights. Overflights, for the noise forecast, included flights that may have originated at or been destined for an airport within the study area that was not one of the 21 focus airports, as well as flights that did not originate from and/or were destined for an airport outside the study area.

In developing the forecast, the project team paid particular attention to the forecast for the general aviation (GA)[8] sector. The corporate aviation market, which is generally identified as business executive transportation using small jets and turboprop aircraft, is expected to grow much faster than scheduled airline service. This is primarily because of growth in fractional ownership programs in which businesses or individuals purchase a portion of an aircraft and share its use with other owners. Appendix B to the Final EIS contains details on forecasts including the assumptions upon which the forecasts were made.

Aircraft, including helicopters, operating under visual flight rules (VFR) are not part of this study and were not included in the forecasts because they are unaffected by proposed alternatives. VFR aircraft are not required to be in contact with ATC. Because VFR aircraft operate on a "see and be seen" principal and are not required to file flight plans, FAA has very limited information for these operations. There is no known source of comprehensive route, altitude, aircraft type, and frequency information for VFR operations in the study area. VFR aircraft generally fly in two ways – either in a pattern around an airport or to some destination of the pilot's choosing. VFR aircraft do not fly set routes to the same destination on each flight. A pilot operating an aircraft under VFR has the discretion to select his destination, route of flight, altitude, and the frequency with which he flies.

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[8] General aviation refers to aircraft operations other than those by scheduled passenger and cargo aircraft not characterized as air carriers or air taxis.

The Airspace Redesign project covers over 31,000 square miles and involves five major airports, sixteen satellite airports, and numerous other airports. As a practical matter, VFR aircraft can depart from or arrive at virtually any airport in the study area or simply pass through the study area on their way to their destination. They can take any route while in the study area. There is no effective method of obtaining a representative sample of the frequency of VFR flights, their routes, altitudes, destinations, and the type of aircraft used over the study area for this type of project. To address potential cumulative noise impacts from VFR traffic the FAA conducted noise monitoring at 18 locations during two distinct periods, resulting in over 36 individual data sets.

In contrast, there are ways for the FAA to obtain the sample data necessary to analyze VFR operations in NEPA documents for discrete proposed airport development projects. The study area for such projects is centered on the specific area surrounding that airport. Most impacts take place in the general area surrounding the airport. Landing and takeoff routes for airport-specific projects are limited by the runway configuration at the airport, and surveys can be conducted to determine representative destinations for VFR aircraft.

C. Impacts and Mitigation

Chapter 4 of the Final EIS contains a detailed analysis of the environmental impacts of all of the alternatives for each of the study years. A detailed discussion of the mitigated preferred alternative, the selected project, appears in Chapter 5 of the Final EIS. This section of the ROD will discuss the impacts of the preferred alternative and the selected project as compared with the no action alternative.

1. Noise and Compatible Land Use

A. Noise

As required by FAA Order 1050.1E, the Noise Integrated Routing System, NIRS, was used to model the noise impacts of the Airspace Redesign project because the project involved a study area larger than the immediate vicinity of an airport, incorporates more than one airport and includes actions above 3,000 AGL. FAA also applied its criteria of significance, an increase of 1.5 dB DNL or more on any noise sensitive area within the 65 dB DNL area, to determine whether the project would result in a significant noise impact. Additionally, FAA reported areas of slight to moderate impacts, that is areas already experiencing noise between 60 to 65 dB DNL that experience a 3 dB DNL or more increase, and areas between 45 and 60 dB DNL that experience a 5 dB DNL or more increase. Section 4.1.2 of the Final EIS contains the detailed environmental analysis of each of the alternatives with respect to noise and compatible land uses.

Under the Future No Action Alternative, there will be a slight growth in noise exposure because of an increase in aircraft operations expected in 2006 and 2011. Approximately 72,141 people in the Study Area, principally in the areas surrounding Kennedy, Newark Liberty, LaGuardia, and Philadelphia Airports, are projected to be exposed to aircraft noise levels greater than 65 dB DNL in 2006. In 2011, this number is 75,459. In 2006 213,692 people in the Study Area are projected to be exposed to noise levels in the 60 to 65 dB DNL range. This number declines to 209,793 in 2011. The Study Area population projected to be exposed to noise levels in the 45 to 60 dB DNL range is 11,774,446 in 2006 and 11,688,798 in 2011.

The selected project would cause approximately 21,399 people to be significantly impacted, which means they would experience a change in noise levels of +1.5 dB or more at a level of 65 DNL dB or greater in 2006. These impacts would occur principally in areas surrounding Kennedy, LaGuardia, Newark Liberty and Philadelphia Airports, specifically in the area of Rikers Island and Hunts Point in New York, Elizabeth, New Jersey, and Essington, Crum Lynne, Woodlyn, Wallingford, Rose Valley, Parkside, Brookhaven, and southeastern Chester Heights in Pennsylvania. The noise increases over Rikers Island and Hunts Point result from the new departure headings off LGA Runway 31 to the north and west gates. The noise increases over Elizabeth, New Jersey are caused by new departure heading off EWR Runways 22L/R. In the Philadelphia area, the noise increases are caused by new departure headings from PHL Runways 27L/R.

Slight to moderate impacts would also result from the preferred alternative in 2006. Approximately 37,558 people in the Study Area would experience an increase of 3 dB DNL who would be in areas experiencing noise exposure of 60 to 65 dB DNL. In areas that would experience 45-60 dB DNL, the number of persons experiencing a slight to moderate impact, 5 dB DNL, would be 142,517.

The preferred alternative would also result in noise decreases in 2006. Within areas that would experience noise exposure of 65 dB DNL and above, 5,970 persons would experience a noise reduction of 1.5 dB DNL or more. One person within the 60-65 dB DNL would experience a noise reduction of 3 dB DNL, and 39,400 people in areas that would experience 45-60 dB DNL would experience a noise reduction of at least 5 dB DNL.

The year 2011 represents the full airspace consolidation and full implementation of the preferred alternative. Significant impacts will occur in 2011 with the preferred alternative, again principally in the areas surrounding Philadelphia, Newark Liberty, Kennedy and LaGuardia Airports. A total of 15,826 people in the study area will experience significant noise impacts principally in the areas of Rikers Island and

Hunts Point, New York, Elizabeth, New Jersey, and Essington, Crum Lynne, Woodlyn, Wallingford, Swarthmore, Media, Rose Valley, and Parkside, Pennsylvania. The 2011 noise increases result from the same design elements that cause significant impacts in 2006. While 2011 will result in significant noise impacts, those impacts will affect a smaller number of people in the study area in 2011 than in 2006.

Slight to moderate impacts would also result from the preferred alternative in 2011. Approximately 34,824 people in the Study Area who would be in areas experiencing noise exposure of 60 to 65 dB DNL would experience an increase of 3 dB DNL. In areas that would experience 45-60 dB DNL, the number persons experiencing a slight to moderate impact, 5 dB DNL, would be 290,758.

The preferred alternative would also result in noise decreases in 2011. Within areas that would experience noise exposure of 65 dB DNL and above, 6,984 persons would experience a noise reduction of 1.5 dB DNL or more. Within the 60-65 dB DNL 22 people would experience a noise reduction of 3 dB DNL, and 62,537 people in areas that would experience 45-60 dB DNL would experience a noise reduction of at least 5 dB DNL.

With respect to noise, the selected project (the mitigated preferred alternative) would result in a decrease in the number of significantly impacted persons in 2006 to 545, in an area west of Philadelphia International

Airport, and the elimination of significant noise impacts in the year 2011. Because the mitigation measures applied to the Integrated Airspace alternative with ICC, the analysis focused on the year 2011. As a result of the mitigation measures, the number of persons who would experience a significant noise impact would be reduced to 0 from the 15,826 people who would experience a significant noise impact without the mitigation measures. With respect to slight to moderate impacts, 16,803 people who would be in areas experiencing noise exposure of 60-65 dB DNL would experience a 3 dB DNL increase in noise, down from 34,824 without mitigation. In areas that would experience noise exposure between 45 and 60 dB DNL, 50,392 would experience a 5 dB DNL increase, as compared to the 290,758 persons who would experience a similar increase without mitigation. See Chapter 5 of the Final EIS for additional details.

As compared to the Future No Action in 2011, the selected project would reduce the number of people experiencing noise exposure of 65 dB DNL and above by 778 people. It would result in increases in the number of people experiencing noise exposure levels between 60 and 65 dB DNL and 55-60 dB DNL by 30,594 and 79,813 respectively. In 2011, the number of people projected to be exposed to noise at the 50-55 dB DNL level would be reduced by 180,411 people over the Future No Action alternative. Finally, 548,241 fewer people will experience a 45-50 dB DNL, noise exposure as a result of the selected project.

The selected project will not have a significant impact with respect to noise in 2011.

B. Compatible Land Use

For airspace redesign projects, incompatible land uses result chiefly from noise impacts. Excessive noise exposure may be incompatible with noise sensitive land uses, such as residences, schools, hospitals, places of worship, parks, and historic sites. Residences in the areas that would experience significant noise impacts as a result of the selected project would constitute incompatible land uses. Additionally, several noise sensitive properties would experience significant noise impacts. They are: Inwood Country Club near JFK; residences at 34 E. 4th Street and 406 Marshall Street and the John Marshall School, and the Bronx Powder Company and the Jenkins Rubber Company buildings near EWR; and the Westinghouse Industrial Complex near PHL. Based on the level of noise modeled for these noise sensitive sites and their use, only the residences at 34 E. 4th Street and 406 Marshall Street and the John Marshall School would represent an incompatible land use.

When the mitigation measures are considered, the selected project would not result in incompatible land uses. As stated in the discussion of noise impacts, the mitigation decreases the number of significantly impacted people to 545 in 2006 and eliminates all significant noise impacts to people in 2011, therefore the selected project would not result in incompatible residential land uses in the long term. With respect to other noise sensitive properties, only the Inwood Country Club and the Westinghouse Industrial Complex would continue to be subject to significant noise impacts by the selected project. Based on their use, the level of noise exposure at the Inwood Country Club and Westinghouse Industrial Complex would not represent incompatible land uses.

2. Socioeconomic Impacts and Environmental Justice

A. Environmental Justice

FAA afforded meaningful opportunities for minority and low income populations to participate in the environmental review process by conducting extensive public outreach activities. The FAA held 31 prescoping workshops, 28 formal scoping meetings, 30 public meetings on the Draft EIS and 7 public information meetings on the Noise Mitigation Report. These meetings were held in locations accessible by public transit, translators were provided, and meetings were advertised by contacting community leaders and using specialized foreign language media. The public information meeting in Newark, New Jersey was held near the potentially affected community.

Environmental Justice impacts were evaluated using the definitions of minority and low income populations in DOT Order 5610.2 and the Council on Environmental Quality Guidance Under the National

Environmental Policy Act. For purposes of the analysis, a high and adverse effect was considered to be a significant impact. As all of the proposed airspace redesign alternatives have potentially significant noise impacts, census data was used to determine the income and minority composition of the significantly impacted areas. This data was used to determine whether these alternatives would result in disproportionately high and adverse effects on minority or low income populations.

The data indicated that all of the airspace redesign alternatives, with the exception of the Ocean Routing Airspace Alternative, would result in environmental justice impacts on minority populations, but not low-income populations. See FEIS Section 4.2 for more details. The preferred alternative would have disproportionately high and adverse impacts on minority populations principally at Rikers Island near LaGuardia and in areas surrounding Newark Liberty and Philadelphia International. As the median income in the effected residential areas exceeds the poverty level there would be no disproportionately high and adverse impacts on low income populations.

Mitigation measures were considered to avoid or minimize the significant impacts for the preferred alternative, in the Final EIS. With mitigation, the preferred alternative would cause significant noise impacts in a residential area located west of PHL upon initial implementation (2006) but all such impacts would be eliminated by 2011.

Closer examination of impacts by census block showed that the overall population significantly impacted by noise in 2006 is less than 50% minority. When the minority population significantly impacted by noise (highest percentage is 17%) is compared to the minority population for Delaware County, 18.7%, the minority population significantly impacted is not meaningfully greater than that of the surrounding area. The percent minority population and median income of each of the significantly impacted census blocks in 2006 is shown in FEIS Table 5.10. The data in the table indicates that median income levels in the significantly impacted areas are above the poverty level.

Based on the above, the project selected for approval and implementation in this ROD, the Preferred Alternative with mitigation, would not cause a disproportionately high and adverse health or environmental impact upon minority or low income populations in 2006 or 2011.

B. Socioeconomic Impacts

FAA Order 1050.1E requires that socioeconomic impacts be considered in environmental analyses of major federal actions. Both direct and indirect impacts were considered in evaluating the selected project. Factors to be considered in determining whether a project would result in significant socioeconomic impacts include whether the project would cause extensive relocation of residents and sufficient replacement housing would not be available; whether there would be extensive relocation of community businesses that would create a severe hardship for the community; whether there would be disruptions of local traffic patterns that substantially reduce the level of service on the roads in the surrounding community; and whether there would be a substantial loss in a community tax base.

The selected project would not result in the construction of facilities. As a result relocation of residences or community businesses would not be required, local traffic patterns would not be disrupted, and there would be no loss of tax base. There would be no direct socioeconomic impacts as a result of the selected project.

Because the preferred alternative would result in significant noise impacts, FAA considered whether it would create indirect socioeconomic impacts. All of the significantly impacted census blocks are located in the immediate vicinity of LaGuardia, Newark Liberty, and Philadelphia. These areas are currently exposed to extensive aviation noise, and would continue to be exposed to noise at similar levels with the Future No Action alternative. Additionally, because of their urban settings, ambient noise is also high in these areas. It would be unlikely that residences or businesses would relocate, surface transportation patterns would be altered, established communities would be divided, planned development would be disrupted, or employment levels would be changed as a result of the selected project. When mitigation is considered, the selected project eliminates significant noise impacts in the long term, thus eliminating the potential for indirect socioeconomic impacts.

3. Secondary or Induced Impacts

Major federal actions have the potential to create induced or secondary impacts on the surrounding communities. Significant induced impacts would normally result from shifts in patterns of population movement and growth; public service demands; and changes in business and economic activity as a result of the project. Significant secondary impacts would normally only result when there are significant impacts in other impact categories, specifically noise, land use, and social impacts.

Secondary or induced impacts were considered in the areas in which the preferred alternative would create significant noise impacts. All of the significantly impacted areas are located in the immediate vicinity of LaGuardia, Newark Liberty, and Philadelphia Airports. These areas currently are exposed to extensive aircraft noise and would continue to be exposed to similar noise levels with the Future No Action alternative. The areas are also located in an urban setting in which ambient noise is also high. For these reasons, there would be no significant secondary or induced impacts as a result of the preferred alternative. When mitigation is considered, significant noise impacts are eliminated long term eliminating the potential for secondary or induced impacts as a result of the selected project.

4. Department of Transportation Act Section 4(f) and Land and Water Conservation Act Section 6(f).

A. Historical, Architectural, Archeological, and Cultural Resources

The National Historic Preservation Act of 1966 (16 U.S.C. §470), as amended requires Federal agencies to consider the effects of their undertakings on properties listed or eligible for listing on the National Register of Historic Places. In assessing whether an undertaking, such as the preferred alternative, effects a property listed or eligible for listing on the National Register of Historic Places, both primary and indirect effects must be considered. Primary effects include the physical removal or alteration of an historic resource. Indirect impacts include changes in the environment of the historic resource that could substantially interfere with the use or character of the property. Such changes include changes in noise, vehicular traffic, and visual impacts.

Neither the preferred alternative nor the selected project includes any ground disturbance, and as a result neither would have direct affects on historic resources in the Study Area.

In order to assess the indirect impacts of the preferred alternative on historic resources, the FAA identified the area of potential effect (APE). The APE consisted of all census blocks with significant noise impacts. The State Historic Preservation Officers (SHPO) in each of the states in the Study Area, except Delaware, agreed to this methodology. The Delaware SHPO requested that all of New Castle County, within the Study Area, be examined for impacts to cultural resources. Potential noise changes in this area of interest were considered while developing the APE. Ultimately, the APE did not include any areas in the states of Connecticut or Delaware because not only were there no significantly impacted census blocks within these states, there were also no moderately or slightly impacted census blocks in either state.

Seventeen historic resources were identified as being in the APE: the Inwood Country Club near JFK, the Unification Chapel, the residences at 34 E. 4th Street and 406 Marshall Street, the John Marshall school, the Bronx Powder Company and the Jenkins Rubber Company buildings, and the Singer Factory District, the Italianate Rowhouse at 168-173 Reid Street, the Sacred Heart Church and School and a portion of the Central Railroad of New Jersey, near EWR; and the Lazaretto, the Printzhof, the Corinthian Yacht Club and Springhouse, the Art Moderne House, the Linde Air Products Corporation, the Westinghouse Village row houses and the Westinghouse Industrial Complex located near PHL. Since publishing the Final EIS, it was discovered that several sites eligible or potentially eligible for listing on the National Register of Historic Places were inadvertently omitted from the discussion in the FEIS, This information is contained in Appendix B.

None of these historic properties is listed or eligible for listing on the National Register of Historic Places because of a quiet setting, therefore an increase in noise, even a significant increase in noise, would not constitute an adverse effect. The FAA has coordinated its determination of no adverse effect with the respective SHPOs, The Pennsylvania SHPO initially sought additional information with respect to the project, however each of the SHPOs has concurred with the FAA's determination of no adverse effect.

B. Parks, Wildlife Refuges

The Draft EIS and Final EIS addressed the FAA's requirement under Section 4(f) of the Department of Transportation Act of 1966 [codified as 49 U.S.C. §303(c)] to determine whether the selected project would result in the use of protected lands or historic properties. Section 4(f) provides that the "Secretary [of Transportation] may approve a transportation program or project requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of a historic site of national, State, or local significance (as determined by the Federal, State, or local officials having jurisdiction over the park, area, refuge, or site) only if there is no prudent and feasible alternative to using that land; and the program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use." The term "use" encompasses not only physical use but may also include adverse impacts such as noise ("constructive use"). A constructive use of a Section 4(f) resource occurs only when the adverse impacts of a project substantially diminish the activities, features, or attributes of the resource that contribute prominently to its significance or enjoyment."[9]

As explained in the Draft EIS and Final EIS, there would be no actual, physical taking of any Section 4(f) property for the selected project. The selected project does not require land acquisition or facility construction. While the selected project has been described as the Integrated Airspace Alternative with Integrated Control Complex, the EIS has made it clear that an ICC can be accomplished within existing buildings with a shared automation platform.

The key issue in terms of constructive use for airspace redesign is project-related aircraft noise. A secondary issue in terms of constructive use for airspace redesign is visual impacts, Chapter Four of the Draft EIS indicated that the Airspace Redesign would not cause use of any Section 4(f) lands and historic sites. Chapter Four relied primarily upon application of the land use compatibility guidelines in 14 CFR Part 150. In response to comments on the Draft EIS, the FAA re-evaluated the applicability of Part 150 guidelines to Section 4(f) resources in the Study Area. Based upon consultation with the National Park Service and comments from interested parties, the Final EIS included information about: (1) Section 4(f) resources potentially having quiet settings as a generally recognized feature or attribute of their significance, (2) a determination of no constructive use when such resources would be predicted to experience less than a 3 DNL change in noise as a result of the selected project in 2011, and (3) the nature of airspace changes affecting such resources predicted to experience 3 DNL or greater increases in noise in 2011. The following paragraphs summarize the information included in Chapter Five of the Final EIS.

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[9] 23 CFR §771.135(p)(4)(ii)

Based upon consultation with NPS and interested parties and the data and analyses described in Chapter 5 of the Final MS and this ROD, FAA has gained additional knowledge about the relative nature and magnitude of project-related impacts in the overall context and the values of the resources protected by Section 4(f) in the study area. The data and analyses indicate that the mitigated Preferred Alternative will not result in a use of a park, recreation area or wildlife and waterfowl refuge, or historic site of national, State, or local significance.

Constructive Use-Noise

Since the selected project has the potential to result in changes in noise over Section 4(f) sites, the FAA conducted an analysis of whether there is a constructive use of any Section 4(f) properties. For a project to result in a constructive use of a 4(f) property, a substantial impairment must occur. "Substantial impairment occurs only when the activities, features, or attributes of the resource that contribute to its significance or enjoyment are substantially diminished. . . . With respect to aircraft noise, for example, the noise must be at levels high enough to have negative consequences of a substantial nature that amount to a taking of a park or portion of a park for transportation purposes."[10]

The FAA relies on Part 150 [14 C.F.R. Part 150] guidelines to evaluate whether there is a constructive use of Section 4(f) lands where they are relevant to the value, significance, and enjoyment of Section 4(f) lands. Part 150 guidelines are appropriate in evaluating whether there is a constructive use of lands devoted to traditional recreational activities. Additionally, the FAA also relies upon Part 150 guidelines, as applicable, for evaluating whether there is a constructive use of historic properties such as for properties in use as residences.

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[10] FAA Order 1050.1E, Appendix B, Section 6.2f

The FAA recognizes that Part 150 guidelines may not be appropriate to address 4(f) resources of value for their quiet settings, that is, lands where noise levels are very low and visitors have an expectation of quiet. "Special consideration needs to be given to the evaluation of the significance of noise impacts on noise sensitive areas within national parks, national wildlife refuges and historic sites, including traditional cultural properties. For example, the 65 dB DNL threshold does not adequately address the effects of noise on visitors to areas within a national park or national wildlife refuge where other noise is very low and a quiet setting is a generally recognized purpose and attribute." In its comments on the Draft EIS dated June 12, 2006, the US Department of Interior recommended that FAA "perform more thorough analysis of impacts to National Park System units and other listed Section 4(f) resources . . . and then re-evaluate the issue of 4(f) use."[11]

The FAA consulted with the National Parks Service (NPS) and considered comments from other interested parties to identify Section 4(f) lands valued for their quiet settings located in the Study Area. The National Parks within the Study Area, the Wilderness Areas of the Catskill State Park, Minnewaska State Park, and Shawangunk Ridge State Forest were identified as potentially having value for their quiet settings. These Section 4(f) lands were subject to additional analysis to determine whether the impacts of the selected project constitute a constructive use.

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[11] FEIS, Appendix N, (Section N.1 under Federal Agencies)

In evaluating the 4(f) lands identified as potentially having value for their quiet setting, the FAA described the property, highlighting any information relating to the level of use and visitor experience. Management plans, when provided by the NPS/FWS, were reviewed and pertinent information was included in the description. Noise levels were calculated at points within each of the properties. Graphics and tables showing the locations and values of the calculated noise levels in each of the subject lands are included in Appendix J.3 of the Final EIS. The difference in noise exposure levels with and without the selected were compared and evaluated.

Lands with a 3.0 DNL or Less Change

The noise values (DNL) for the selected project for 2011 were compared to the 2011 Future No Action Alternative noise values. Where the difference in the noise level experienced as a result of the selected project, as compared to the 2011 Future No Action, was less than 3.0 DNL at all points analyzed within the property, FAA concluded the change in noise would not result in a constructive use of the Section 4(f) land. The use of 3.0 DNL for screening for constructive use is a conservative application of the screening criteria used by the FAA to analyze noise levels below 65 DNL dB in NEPA documents and consistent with Federal Highway Administration and Federal Transit Administration (formerly the Urban Mass Transit Administration) regulations defining constructive use under 23 C.F.R. §771.135.[12] At a great majority of the Section 4(f) properties identified for additional analysis, the difference in noise exposure level would be less than 3.0 DNL. Therefore, the FAA concluded in the Final EIS that for these properties the selected project would not result in a constructive use.

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[12] The FAA adopted the recommendations of the Federal Interagency Committee on Noise (FICON) to broaden the scope of airport noise analysis to address 3 dB or more between DNL 60 and 65 dB in its NEPA documents. The Technical subgroup of FICON developed this criteria based on its assessment that a 3 dB increase in DNL, which represents a doubling of sound energy, is clearly perceptible at sound levels between DNL 60 and 65dB and suggests the need for additional analysis. FAA Order 1050.1E, Appendix A, paragraph 14.4c. For air traffic airspace actions such as the present one FAA normally uses the Noise Integrated Routing System (NIRs) to produce change-of-exposure tables and maps at population centroids based upon changes of 5 DB in the DNL 45-60 DNL dB contour area and changes of 3 dB or greater between DNL 60 and 65 DNL dB. FAA Order 1050.1E, paragraph 14.5e. DNL changes of 5dB are used because it requires a greater change in noise at lower noise levels to have the potential for people to perceive a change in the noise environment. Increases of 3 dB or greater were used as a screening tool here at all levels below DNL 65 dB, including areas far below FAA's normal DNL 45dB lower limit for screening populated areas, to err on the side of more conservative screening. This resulted in additional analysis at much lower noise levels using much lower screening criteria than normal to provide special consideration to resources protected under DOT Section 4(f) identified as having a quiet setting as a generally recognized purpose and attribute and also to address DOI concerns that parks should not be equated to residential areas. The FICON guidance concerning 3 DNL db is more directly relevant here than the FHWA constructive use regulations, which relate to traffic noise exposure measured in hourly or 12 hour equivalent sound levels.

Lands with Some Change greater than 3.0 DNL

Some of the Section 4(f) land would experience a change in noise exposure level of 3.0 DNL or greater as a result of the selected project. The FAA did not make a conclusion regarding constructive use of these properties in the Final EIS. Rather, in Section 5.3.5.1 of the FEIS the FAA committed to conduct further evaluation, in consultation with appropriate federal and state officials, to determine whether predicted noise increases over affected areas of these 4(f) resources would result in a constructive use. FAA further indicated that it would include the results of this evaluation and any necessary additional 4(f) analysis and determination in this Record of Decision. The additional analysis is summarized below and detailed in Appendix B of the ROD.

The Section 4(f) properties for which additional noise evaluation was conducted are:

- Appalachian National Scenic Trail
- Delaware and Lehigh National Heritage Corridor
- Delaware Water Gap National Recreation Area
- Hopewell Furnace National Historic Site

- Upper Delaware Scenic & Recreational River
- Weir Farm National Historic Site
- Wallkill River National Wildlife Refuge
- Catskill Park (Big Indian – Beaverkill Range Wilderness Area, Slide Mountain Wilderness Area, Westkill Mountain Wilderness Area)

Additional 4(f) Resources to which Part 150 Guidelines Apply

Upon additional review, the FAA has determined that a quiet setting does not appear to be a generally recognized feature or attribute of the significance for several of the sites that were identified for further study in the Final EIS. The additional analysis and review is summarized below and detailed in Appendix B of the ROD.

The Hopewell Furnace National Historic Site, Upper Delaware Scenic and Recreational River, and the Delaware and Lehigh Canal National Heritage Corridor are lands for which a quiet setting is not an attribute of the land. Therefore, pursuant to Order 1050.1E, the Part 150 guidelines should be used to evaluate whether there is a constructive use. The range of noise exposure levels resulting from the selected project for all three 4(f) properties were below the Part 150 compatibility guidelines. Additionally, the Hopewell Furnace National Historic Site, and the Delaware and Lehigh Canal National Heritage Corridor are historic properties and the finding under

Section 106 may be used to determine whether there would be a constructive use. Both sites are outside the APE determined in consultation with the appropriate State Historic Preservation Officers and therefore were not affected by the selected project.

Lands for which a quiet setting is an attribute of the land

With respect to the remaining Section 4(f) sites for which a quiet setting is an attribute of the land, a review of the data showed that with the selected project, the aircraft noise exposure levels at the points evaluated in all of these sites would remain within a range of 44.0 DNL at the highest to 15.5 DNL at the lowest. This range in noise level is low to extremely low. For example, FHWA has determined that a constructive use would not occur for "[l]ands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose" when the project noise does not exceed 57 Leq(h).[13] This can be conservatively equated to 43.2 DNL.[14]

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[13] 23 CFR §771.135 and Table 1 of 23 C.F.R. §772.

[14] The criteria are based on the 1-hour Leq (Leq(h)) metric for peak hour traffic. The DNL metric is a 24-hour cumulative noise metric with an added 10 dB penalty for events that occur during nighttime hours. Translating the 1-hr Leq threshold to a 24-hour Leq can be done conservatively (finding the lowest 24-hr threshold level) by assuming that the threshold value (Leq(h) 57 dB) would occur only one hour during the day and then no noise

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Specifically any location that has an aircraft DNL value of 43.2 DNL or less could not possibly have a peak hour Leq(h) level of greater than 57 dB.

The FAA evaluated the noise exposure levels at the remaining Section 4(f) properties, the Appalachian Trail, the Catskill Park Wilderness Areas, the Delaware Water Gap, the Wallkill National Wildlife Refuge and the Weir Farm National Historic Site, by considering the noise exposure level ranges and medians at each site. Based on this data, the FAA determined that the noise environment would not be substantially changed by the selected project and/or the comparable ambient noise levels are expected to be higher than future aircraft noise levels, and/or the site was not affected as it pertains to Section 106. Therefore, the FAA concluded that the selected project would not result in a constructive use of a 4(f) property as it relates to noise.

FAA also considered effects upon the Wallkill National Wildlife Refuge considering the fact that one of its purposes is to preserve threatened and endangered species. Listed species known to inhabit the refuge currently or in the past are: the Indiana bat, bog turtle, dwarf wedge mussels, Mitchell's satyr (extirpated), and American burying beetle (extirpated).

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for the remaining 23 hours of the day. This would result in a 24 hour Leq of 43.2dB. The comparison of DNL values to 24-hour Leq values generally represents a conservative comparison since DNL levels are typically higher than Leq values would be for the same amount of noise.

As noted in the section of this ROD relating to threatened and endangered species, by letter dated August 27, 2007, the FAA determined that the selected project would have no affect on these listed species and requested concurrence from FWS. On September 5, 2007, the FWS concurred with the FAA's determination of no effect to these federally listed species. See that section of the ROD for more details.

Constructive Use-Visual

Visual impacts would result in a constructive use of a 4(f) site only if the activities, features, or attributes of the site that contribute to its significance or enjoyment are substantially diminished. Normally, visual impacts are a result of construction, development, or demolition. The selected project does not include any of these actions. FHWA regulations defining constructive use include examples of when the proximity of a proposed project to a 4(f) site would substantially diminish aesthetic features or attributes that contribute to the value of a Section 4(f) property. "Examples . . . would be the location of a proposed transportation facility in such proximity that it obstructs or eliminates the primary views of an architecturally significant historic building, or substantially detracts from the setting of a park or historic site which derives its value in substantial part due to its setting."

The North Eastern Corridor of the U.S. is heavily populated and is a hub for domestic and international air traffic. The Study Area is already heavily traversed by commercial aircraft. The selected project is limited to changing the aircraft routes. At higher aircraft altitudes and with greater distances from viewers, it is unlikely that changes in the location of such tracks would substantially obstruct the primary vista or detract from the setting of 4(f) resources that derive their value in substantial part due to their settings and vistas. However, based on consultation with the NPS, the FAA provided additional information regarding potential airspace changes in the vicinity of outstanding vistas located within the National Parks, National Wildlife Refuges and the Catskill Park Wilderness Areas.

As requested by the NPS, the FAA reviewed the management plans and other documentation for the parks to determine the locations of important and/or outstanding vistas. It is noted that many management plans referred to scenic qualities in a generalized manner but did not include the locations of specific outstanding vistas. Visual impacts were primarily considered only for the specifically identified vistas. Thus visual impacts were considered for scenic vistas identified in the following parks: the Appalachian Trail, the Delaware Water Gap National Recreation Area, the Ellis Island National Monument, the Gateway National Recreation Area, the Home of Franklin D. Roosevelt National Historic Site, the Morristown National Historical Park, the Statue of Liberty National Monument, the Vanderbilt Mansion National Historic Site, the Elizabeth A. Morton NWR, the Oyster Bay NWR, the Stewart B. McKinney NWR, the Target Rock NWR, and the Big Indian, Slide Mountain, Indian Head, Westkill Mountain Wilderness Areas in the Catskills Park. For these locations, a summary of the potential airspace changes in the vicinity of the scenic vistas was provided. This information includes number of operations, and the minimum, average and maximum altitudes resulting from the Future No Action Airspace Alternative, Preferred Alternative, and the mitigated Preferred Alternative. Based on this information it was determined in the Final EIS that the selected project would not result in a constructive use relative to visual impacts for scenic vistas in the following parks: the Delaware Water Gap National Recreation Area, the Ellis Island National Monument, the Gateway National Recreation Area, the Morristown National Historical Park, the Statue of Liberty National Monument, the Elizabeth A. Morton NWR, the Oyster Bay NWR, the Stewart B. McKinney NWR, the Target Rock NWR, and the Big Indian, Slide Mountain, and Westkill Mountain Wilderness Areas in the Catskills Park.

Additional Analysis

In Section 5.3.5.1 of the Final EIS the FAA committed to conduct further evaluation to determine whether visual changes over the Appalachian Trail, the Home of Franklin D. Roosevelt National Historic Site and the Vanderbilt Mansion National Historic Site would result in a constructive use and to consult with appropriate federal officials. FAA further indicated that it would include the results of this evaluation and any necessary additional 4(f) analysis and determination in this Record of Decision. The additional analysis is summarized below and detailed in Appendix B of the ROD.

For the Appalachian Trail, the data shows that minimum altitudes for overflights would be the same with both the No Action Airspace Alternative and the selected project for all viewpoints except V19-20, V23-30 and V48-51. At viewpoints V19-20 and V23-30 the minimum altitudes would be appreciably/approximately the same. At viewpoints V48-51 only very small number of propeller aircraft would fly at an altitude lower than the No Action Airspace minimum altitude. Operations would decrease at 29 viewpoints (V1-V5; V12-18; V19-20; V59-66, and V72-78) and increase at 48 viewpoints (V6-11, V23-30, V31-37, V38-V58, V67-71, V79). Currently, given their altitude and transitory nature, commercial aircraft do not obstruct the noted views along the Appalachian Trail. Therefore, since the selected project does not substantially change the minimum altitudes of commercial aircraft, it is concluded that the selected project would not result in an obstruction to the noted views nor would it substantially detract from the setting of the Trail. The visual effects of the airspace changes associated with the selected project are minor and would not substantially diminish the activities, features, or attributes of the Appalachian Trail. The FAA thus concludes that the selected project would not result in a constructive use as it relates to visual impacts for the Appalachian Trail.

Specific superb views overlooking the Hudson River, the bluffs and mansions across the river, and the Shawangunk Mountains to the west were noted in the both the Home of Franklin D. Roosevelt National Historic Site and the Vanderbilt Mansion National Historic Site Master Plans. According to Table 5.14 of the Final EIS, the total daily operations over these sites would increase from 109 with the No Action Airspace Alternative to 136 with the selected project. If those operations were spread out over a 24 hour period this would equate to 4.5 operations per hour with the No Action Airspace Alternative and to 5.7 operations per hour with the selected project. The table also shows that the minimum altitude of these operations does not change as a result of selected project. Therefore, because the change in the number of operations would be low and the minimum altitude would remain the same, the visual environment would not substantially change as a result of the selected project. It is thus concluded that the selected project would not result in a constructive use of these resources as it relates to visual impacts because the changes associated with the selected project would not substantially diminish the activities, features, or attributes of either historic site.

Based on analysis found in the Final EIS and Appendix B of the ROD, the FAA concludes that the selected project would not result in either a physical or constructive use of a 4(f) property. The FAA is committing as part of this ROD to monitor the implementation of the selected project as it relates to DOT Section 4(f) resources for which quiet and serenity are recognized attributes and purposes, utilizing adaptive management techniques.

5. Wild and Scenic Rivers

The Wild and Scenic Rivers Act provides for the protection and preservation of rivers that possess outstandingly remarkable recreational, geologic, fish and wildlife, historic, cultural, and other similar values. The designated wild and scenic rivers within the Study Area are: the Farmington Wild and Scenic River in Connecticut; the White Clay Creek in Delaware and Pennsylvania; the Great Egg Harbor River and the Maurice River in New Jersey; the Upper Delaware Scenic and Recreational River in Pennsylvania and New York; and the Middle and Lower Delaware Scenic and Recreational River in Pennsylvania and New Jersey.

The FAA has determined that there would be no indirect or direct impacts on a wild or scenic river as a result of the selected project. None of these rivers lie in areas that will experience any reportable noise impact that is a significant or slight to moderate noise impact.

6. Fish, Wildlife, and Plants

A. Fish, Plants and Wildlife Other Than Avian Species

The selected project involves no ground disturbance, and therefore will not destroy or modify critical habitat for any species. Because the number of flights as well as the origin and destination of the flights will remain the same as with the No Action alternative, the selected project would not increase the opportunity for introduction of invasive species. Additionally, the selected project would not increase the probability of aircraft strikes involving non-avian species. Such strikes are either on or very close to the ground. Aircraft movement in areas where terrestrial species are likely to be involved in a strike is dictated by the location of runways and taxiways. The selected project will not alter runway or taxiways at any of the airports in the Study Area. The FAA has concluded that the selected project will have no significant impacts on fish, plants, or wildlife species other than avian species.

B. Birds

The potential impact to avian species resulting from changes to aircraft routes are measured by the potential for the selected project to result in increases in the number of bird strikes. Absent any wildlife attractant, birds tend to be randomly distributed, and changing aircraft departure routes will not increase the potential for bird strikes. Wildlife attractants, such as wildlife refuges and breeding colonies exist in the Study Area beneath initial departure routes.

Aircraft fly over and near wildlife attractants presently and would continue to fly over and near wildlife attractants in the Future No Action alternative. After considering the changes to aircraft routes as a result of the selected project, while there are noticeable differences in the flight patterns as a result of the selected project, there are no discernable changes to the relationships of flight patterns to birds within the bird study area. Thus, the selected project will not have any significant impacts.

C. Threatened and Endangered Species

The FAA coordinated the Draft EIS with the U.S. Department of Interior, which provided comments from both the FWS and NPS by letter dated June 12, 2006. The Department expressed concerns that the information in the Draft EIS about noise and visual effects, federally listed species, and aircraft-bird collisions was insufficient, but that these could he corrected by incorporating the Department's recommendations for revisions into the FEIS in coordination with NPS and FWS. This section of the ROD summarizes coordination with FWS in response to the request to include conservation measures such as flight restrictions at airports during nesting periods to protect federally listed species from noise and visual changes. FWS recommended maintaining a minimum vertical distance of 2,000 feet above ground level or at least a 1-mile lateral distance from active nesting sites seasonally for each species.

The FAA obtained information from FWS regarding the location of nesting sites so that more detailed information could be provided concerning how the preferred alternative would affect the piping plover, roseate tern, and bald eagle in comparison to the No Action Alternative in the future. Since the bald eagle has been removed from the endangered species list and is no longer subject to protection under Section 7 of the Endangered Species Act, as requested we assessed compliance with the National Bald Eagle Guidelines. These guidelines indicate that aircraft should not be operated within 1,000 feet vertical of nests during the breeding season, except where eagles have demonstrated tolerance for such activity.

By letter dated August 27, 2007, FAA provided additional information to FWS in support of its no effect determination on these three listed species. FAA also assessed the operational feasibility of restricting landings and takeoffs to protect existing nesting sites off the ends of airport runways. As to the recommended flight restrictions to protect piping plover nesting sites and the separation criteria under the National Bald Eagle Guidelines, FAA confirmed that the distance between the closest flight tracks and nesting sites near airports would be the same under the Preferred Alternative with or without mitigation as it is under the Future No Action Alternative/ Existing Condition, citing circumstances at two airports. FAA also noted that because nesting at these distances currently occurs, piping plovers and eagles have demonstrated a tolerance for such activity. Although nesting sites of the roseate tern have not been confirmed for many years, there is no indication that circumstances would be different for roseate terns.

FWS staff requested more data comparing the distances between flight tracks under existing conditions and the preferred alternative for all identified nesting sites of the piping plover. Although the preferred alternative does not increase traffic generally, FAA was also asked to address and document the potential for increased flights over these sites at attitudes below 2,000 feet. The FAA responded on September 5, 2007 and requested concurrence in its determination of no effect for the roseate tern and the piping plover. On September 5, 2007 the FAA obtained FWS concurrence that the selected project is not likely to adversely affect the piping plover and roseate tern.

While the U.S. Department of Interior expressed no concerns about species in the Wallkill River National Wildlife Refuge, FAA recognized as part of its further review of Section 4(f) resources that the purpose of this refuge is to preserve threatened and endangered species. Species known to inhabit the refuge presently or in the past are the Indiana bat, bog turtle, dwarf wedge mussels, Mitchell's satyr (extirpated), and American burying beetle (extirpated). Based on a review of the literature regarding effects of noise on animals, and the noise analysis indicating that the preferred alternative would not substantially change the noise environment, the FAA expressly determined in its August 27, 2007 letter that the preferred alternative has no affect on these species. FAA sought concurrence as well regarding this determination.

On September 5, 2007 the FAA responded to the FWS and obtained FWS concurrence regarding these determinations of no effect.

7. Light Emissions and Visual Impacts

A. Light Emissions

To determine whether light emissions will create a significant impact, FAA considers the extent to which lighting associated with the project will create an annoyance among people in the vicinity or interfere with their normal activities.

Light emission impacts are most likely to occur at low altitudes and near the primary airports in the study area. Under current conditions, these areas are exposed to aircraft lights, and would continue to be exposed to aircraft lights under the Future No Action alternative. These same areas are most likely to be exposed to light emissions as a result of the selected project. Because the areas most likely to be exposed to light emissions will be exposed to a similar level of light emissions both with and without the selected project, no significant light emission impacts will result.[15]

B. Visual Impacts

Generally, visual impacts result from the disturbance of the aesthetic integrity of an area. Because the selected project would not involve construction, alteration, or demolition of a facility, there would be no visual impacts from physical disturbance to the area. The selected project would cause more aircraft to be in areas in which they would not be under the Future No Action alternative. Changes to aircraft flight patterns at higher altitudes are not normally visually intrusive because of their distance from the ground. Changes at lower altitudes as a result of the selected project would occur predominantly near the primary airports in the study area where communities are currently exposed to the sight of aircraft and would continue to be exposed to the sight of aircraft with the Future No Action alternative. Thus, there are no significant visual impacts as a result of the selected project.

Visual impacts were also assessed in relation to Section 4(f) properties. See Section VI.4.B, and Appendix B of this ROD for a discussion of the visual impacts on Section 4(f) properties.

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[15] See FAA Orders 5050.4A and 5050.4B for guidance on the threshold of significance.

8. Air Quality

Air quality impacts are assessed by evaluating the impact of the proposed project on the National Ambient Air Quality Standards (NAAQS) for the six criteria pollutants. The impact of a project is the difference in emissions between an action alternative and the no action alternative in the future and how that projected difference would impact pollutant concentrations. Additionally, FAA must ensure that its project is in conformity with the state implementation plan (SIP) for attaining the NAAQS. Under Section 176(c) of the Clean Air Act, FAA may not engage in, support in any way, provide funding for, license, or approve any activity that does not conform to the purpose of the approved SIP. The U.S. Environmental Protection Agency's (EPA) adopted the General Conformity Rule (40 C.F.R. Part 93 subpart B) to provide guidance to Federal agencies in demonstrating conformity.

Under the General Conformity Rule, a project does not require a conformity determination if the project is exempt, presumed to conform, or if the net increase in annual emissions is less than the de minimis thresholds outlined in the Rule. A NAAQS assessment for NEPA purposes is typically not required for projects that are exempt or presumed to conform under the General Conformity Rule.

During the scoping process FAA consulted US EPA officials having jurisdiction within the study area, Regions 1, 2, and 3 to discuss the nature of the project and analysis of air quality impacts. During the meetings FAA explained to EPA officials that an air quality assessment was not required because the proposed airspace redesign actions were exempt from analysis under the General Conformity Rule as de minimis; the proposed action is not a capacity enhancement project and would not increase the total number of operations at airports in the study area; and the purpose and need for the project includes increasing efficiency and reducing delay which would serve to reduce fuel burn and air pollutant emissions.

EPA officials working with the FAA Office of Airports officials to develop a list of air traffic and airport actions presumed to conform[16] subsequently raised questions about the legal status of the exemption for "air traffic control activities and adopting approach, departure, and en route procedures for aircraft operations." Determining Conformity of General Federal Actions to State or Federal Implementation Plans; Final Rule, 58 Fed. Reg. 63214, 63229, November 30, 1993. EPA staff raised these questions because the exemption for these activities was referenced in the Preamble, but not the final rule.[17] As a result of

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[16] 40 CFR §93.153(f).

[17] "Further, EPA believes that Federal actions which are de minimis should not be required by this rule to make an applicability analysis. A different interpretation could result in an extremely wasteful process which generates vast numbers of useless conformity determinations. . . . Therefore, it is not necessary for a Federal agency to document emissions levels for a de minimis action. Actions that a Federal agency recognizes as

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discussions with EPA staff, after determining that there was adequate supporting data, FAA deemed it prudent to include the activities described in the preamble to the General Conformity Rule as a presumed to conform action in the Final Notice that FAA published in the Federal Register, Vol. 72, No. 145, pp. 41565-41580 on July 30, 2007.

To determine whether reduced delays and more efficient flight routes would reduce fuel burn and respond to comments on the DEIS, FAA tasked a consultant to conduct a fuel burn analysis. The study projected fuel consumption on an average day in 2011 under the Future No Action Alternative, the Preferred Alternative, and the selected project. See Final EIS, Appendix R. The analysis of fuel consumption demonstrated that the selected project would result in a reduction in fuel consumption of 194.4 metric tons per day, compared to the No Action Alternative. This was slightly less than the Preferred Alternative, which would reduce fuel consumption by 205 metric

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clearly de minimis, such as actions that do not cause an increase in emissions, do not require positive conformity determination. . . . to illustrate and clarify several de minimis exemptions are listed in 51.853(c)(2). There are too many Federal actions that are de minimis to completely list in either the rule or this preamble. In addition to the list in the rule, the EPA believes that the following actions are illustrative of de minimis actions: . . . (2) Air traffic control activities and adopting approach, departure, and enroute procedures for air operations." Determining Conformity of General Federal Actions to State or Federal Implementation Plans; Final Rule, 58 Fed. Reg. 63214, 63229, November 30, 1993.

tons per day compared to the No Action Alternative. As reduced fuel consumption is directly related to reducing air pollutant emissions, the fuel burn analysis further shows that the selected project is exempt because it would clearly reduce rather than increase emissions.

As discussed in the FEIS, based upon FAA's experience the proposed air traffic procedural changes will not induce growth in air or vehicular traffic or alter the distribution of air or vehicular traffic among airports. Such changes are not likely to change passenger airport preferences based upon ticket cost, airport location, and service to the desired destination.

Based upon the EIS and the clarification in the footnote below regarding regional significance, the proposed airspace redesign alternatives and the selected project are either exempt or presumed to conform under the General Conformity Rule.[18] As

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[18] The Final FAA Notice Federal Presumed to Conform Actions deferred action on the aspect of its Draft Notice relating to regional significance of presumed to conform actions based upon consultation with US EPA. However, the reasoning in the FAA's Air Quality Handbook cited in the Draft Notice indicates that these emissions would not be regionally significant under 40 CPR §93.153(i). Even assuming, without conceding, that the proposed airspace redesign alternatives and the selected project cause a de minimis increase in emissions, they would not represent 10 percent or more of the total emissions of these pollutants in any area. The highest de minimis threshold level for the four pollutants of concern in the study area (CO, ozone, SO_2, and $PM_{2.5}$ and PM_{10}) is 100 tons per year. The total emissions

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such, a detailed assessment under NEPA and a positive conformity determination under the Clean Air Act are not required. The selected project will not cause a new violation of the NAAQS, worsen an existing violation, or delay meeting the standards of the carbon monoxide, ozone, sulfur dioxide, and particulate matter NAAQS in the five states within the Study Area.[19] Moreover, because the selected project would reduce fuel burn compared to the Future No Action Alternative it would also reduce emissions of carbon dioxide and other greenhouse gases.

9. Natural Resources and Energy Supply

Order 1050.1E calls for major federal actions to be examined to identify whether the action would have a

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inventories for the relevant areas all exceed 1,000 tons per year for these four pollutants.

[19] The study area includes the entire state of New Jersey and portions of Connecticut, Delaware, New York, and Pennsylvania. The geographic areas within the Study area that do not meet the National Ambient Air Quality Standards (i.e. non-attainment areas) or that were non-attainment and redesignated as attainment (i.e. maintenance areas) are discussed in Chapter 3 of the EIS. See, FEIS Tables 3.20-3.22 and Figures 3.20-3.22. The study area includes areas designated as maintenance for carbon monoxide (CO) and non-attainment for three other pollutants: ozone (8 hour standard), sulfur dioxide (SO_2), and particulate matter (PM_{10} and $PM_{2.5}$). No portion of the Study area is non-attainment or maintenance for nitrogen dioxide (NO_2) or lead (Pb).

measurable effect on local supplies of energy or natural resources.

Neither the Future No Action alternative nor the selected project would involve construction or modification of a facility, thus the selected project would not involve an irretrievable commitment of natural resources. Additionally, as demonstrated in the fuel burn analysis, FEIS Appendix R, the selected project is expected to result in a decrease in the use of aviation fuel of approximately 66,840 gallons per day.

10. Construction Impacts

The selected project will not involve any construction activity and thus will have no construction impacts.

11. Farmlands

The selected project will not involve any physical ground disturbance and will have no impacts on prime or unique farmland.

12. Coastal Resources

A. Coastal Zone Management

The states of Connecticut, Delaware, New Jersey, New York, and Pennsylvania have initiated coastal zone management programs (CMZP). Because there will be no impact to surface resources, the selected project will not have an impact on the CMZP for Connecticut, Delaware, New Jersey, New York, and Pennsylvania.

At the request of the state of Delaware, federal consistency determinations were prepared in accordance with each state's CMZP. Delaware concurred in the consistency determination. Connecticut, New Jersey, New York, and Pennsylvania did not respond to the consistency determination for its state. The FAA's consistency determinations can be found in Appendix K of the Final EIS.

B. Coastal Barriers

The selected project will not result in the development or physical alteration of facilities that would adversely affect resources protected in the Coastal Barrier Resource System.

13. Water Quality

The selected project will have no impacts to water quality because it does not involve the construction or physical alteration of facilities.

14. Wetlands

There will be no impacts to wetlands as a result of the selected project because it does not involve the construction or physical alteration of facilities.

15. Floodplains and Floodways

The selected project will not involve in the construction or physical alteration of facilities and would have no impact on Floodplains and Floodways.

16. Hazardous Materials, Pollution Prevention and Solid Waste

A. Hazardous Materials

There will be no ground disturbances as a result of the selected project therefore it will not result in the disturbance of materials identified as a substance capable of posing an unreasonable risk to health, safety, and property. Moreover, the selected project is not forecast to increase the level of aircraft operations in the study area over the Future No Action alternative. As a result, the selected project will not result in an increase in the generation of materials identified as a substance capable of posing an unreasonable risk to health, safety, and property.

B. Pollution Prevention

The selected project will increase the efficiency of the airspace, result in more direct routing, and decrease the use of fuel by 194 metric tons per average day. As a result the selected project will tend to decrease pollution in the study area.

C. Solid Waste

The selected project will not result in the long-term generation of municipal solid waste because it will not involve construction or the physical alteration of facilities.

17. Cumulative Impacts

A. Projects

CEQ defines cumulative impacts are the incremental impacts of the action when added to other past, present, and reasonably foreseeable future actions regardless of the agency undertaking the actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. 40 C.F.R. §1508.7.

In analyzing the possible cumulative impacts of the Airspace Redesign project, FAA considered potential projects proposed in or near the study area. Project data was gathered from FAA, state DOT websites, Comprehensive Land Use Plans and other area and local plans. Because the impacts from the selected project were either noise or noise related, only those proposed projects that had the potential for cumulative noise impacts were considered. Four projects were determined to have the potential for cumulative noise impacts: Runway 17/35 Extension at PHL, Capacity Enhancement Program (CEP) at PHL, Part 150 Study at Bradley International Airport (BDL); and Board authorization for the Port Authority of

New York and New Jersey (PANYNJ) to acquire the lease for Stewart International Airport (SFW).

The Runway 17/35 Extension at PHL is underway and is expected to be operational by early 2009. The Final EIS for the runway extension project indicates that the runway extension is expected to result in only a very minimal change in the noise pattern around PHL. Additionally, the runway extension project will not increase capacity at Philadelphia International. Therefore significant cumulative impacts are not expected.

The purpose of the CEP at PHL is to increase the airfield capacity of Philadelphia International. The need for increased airfield capacity at Philadelphia International is independent of the selected project. While the CEP has the potential for cumulative impacts with the selected project, there has been no determination of the reasonable alternatives for the project and there is insufficient information to evaluate cumulative impacts at this time, especially as they relate to noise. The FAA is preparing an EIS for the CEP project, which will include a consideration of the selected project.

A Part 150 Study was developed for Bradley International which included a noise compatibility program involving airport-specific noise abatement measures. The selected project will not disturb the noise abatement measures resulting from the Bradley International Part 150 study. The noise compatibility program will have the effect of decreasing noise in the vicinity of Bradley International, and thus is not likely to have significant negative cumulative impacts.

In January 2007, the PANYNJ's Board of Commissioners authorized it to purchase the operating lease to SFW. The intention in the PANYNJ acquiring Stewart was to use it as a fourth airport for the New York/New Jersey Metropolitan Area, providing relief for the three major area airports in the form of delay reductions, and to prepare for inevitable population and passenger growth. As of July 2007, the PANYNJ was still in negotiations to acquire the lease. Even if the PANYNJ is successful in acquiring Stewart, it is unclear whether airlines would be willing to operate at Stewart, especially in light of a recent announcement by American Airlines, the last scheduled passenger air carrier with service at Stewart, that it was ceasing service to the airport. This proposal is speculative and not reasonably foreseeable, thus was not considered in the evaluation of cumulative impacts.

The FAA also considered other airspace redesign projects in evaluating the potential for cumulative impacts. The FAA has issued RODs for airspace redesign projects for the Chicago Terminal Area (CTAP), and the Potomac Consolidated TRACON Airspace Redesign after completion of an EIS for each project. There was no overlap in the study areas for each of the projects with the study area of the selected project, and the CTAP and Potomac projects will not induce growth or increase capacity. The selected project will not result in significant cumulative impacts in combination with these projects.

The FAA issued a FONSI/ROD based on an Environmental Assessment (EA) for the Midwest Airspace Enhancement Airspace Redesign in the Cleveland/ Detroit Metropolitan Areas. The study area for this project does not overlap the study area for the selected project and will not induce growth or increase capacity. No significant cumulative impacts will result from the selected project in combination with this project.

B. Ambient Comparison

FAA also looked at the potential for cumulative noise impacts by considering total noise, ambient noise, and aircraft noise. Noise measurement data, presented in Final EIS Appendix D, was analyzed in conjunction with the noise modeling computations for each noise measurement she in the study area. Such an analysis permitted FAA to consider the contribution of aircraft noise, including traffic operating under Visual Flight Rules, to the total noise at each site. This type of analysis can only be conducted specific to each noise measurement location, however it does provide insights into how the selected project contributes to the noise in the area.

Measured noise levels at each of the 18 noise measurement sites contains contributions from all noise sources, including both aircraft and non-aircraft sources. After completing the analysis, the details of which can be found in Section 4.18.2 of the Final EIS, it was clear that the changes in the total noise environment as a result of the selected project would be very small in the context of the total noise environment for locations that are not situated very near a major airport. This analysis supports the FAA's determination that there are no significant cumulative impacts as a result of the selected project in combination with other past, present, or reasonably foreseeable future actions.

VII. Public and Agency Involvement

The FAA followed NEPA guidelines and involved the public and other agencies in the impact assessment process. The public and agencies were given the opportunity to assist in determining the scope of issues to be addressed in this EIS during the informal pre-scoping and formal scoping period. After the scoping meetings, the FAA held a number of agency meetings, distributed newsletters, and created a website to educate, inform, and receive feedback from concerned citizens and organizations.

The pre-scoping process included a series of airspace redesign workshops. Thirty-one workshops were held throughout the Study Area between September 22, 1999, and February 3, 2000. A total of 1,174 people attended the workshops and 712 comments were received.

The formal scoping period was January 22, 2001 through June 29, 2001. The scoping process consisted of 28 public meetings and three agency meetings held in various locations throughout the Study Area. A total of 1,031 people attended the scoping meetings and 901 comments were received.

In addition to formal scoping meetings, the FAA met with agencies with jurisdiction or special knowledge relative to the Airspace Redesign project on an as needed basis. Typically, each meeting consisted of introductions, a slide show presentation, and a video on the NY/NJ/PHL Metropolitan Airspace Redesign project. The agencies were encouraged to share their concerns or comments regarding the Airspace Redesign. The agency comments and concerns were used by the FAA in assembling the materials needed for the Draft EIS.

Throughout the development of the EIS, the FAA consulted with interested agencies and organizations. Table ES.7 of the Final EIS provides a sampling of the agencies and organizations consulted. (See Appendices L and M for additional information regarding agency consultation.) Periodic briefings were also given to members of Congress, the New Jersey and Delaware Congressional delegations, and various Governors' offices.

The Draft EIS was distributed to interested federal, state, and local agencies, and citizens for review and comment. (See Chapter Nine for a comprehensive list.) Public information meetings were held for the Draft EIS from February 2006 through May 2006. On February 16, 2006 emails were sent to over 580 residents listing the specific meeting locations and on February 24, 2006 postcards were sent to over 3,200 residents with specific meeting locations. Each meeting was publicized through multiple local newspapers and radio stations. The public meeting process consisted of 30 meetings held in various locations throughout the Study Area. A total of 1,166 people attended the public meetings, and a total of 321 written and oral comments were received. The FAA reviewed and responded to all comments received during the comment period.

On April 6, 2007, the FAA published its Noise Mitigation Report, providing detailed information on mitigation measures for its Preferred Alternative. FAA informed the public of its availability through the FAA website and provided copies of the report to 71 libraries within the Study Area. FAA conducted seven public information meetings to discuss the Preferred Alternative and the proposed mitigation measures. The FAA accepted comments on the Noise Mitigation Report through May 11, 2007. Comments were also accepted at the Mitigation public information meetings held in June. Over 2,200 people attended the meetings, and approximately 1,700 written and oral comments were received.

The FAA engaged in several other initiatives to educate and involve the public in the Airspace Redesign Project. One of the primary initiatives was the project website. The project website was established in 2002 and provided both important project related information and the opportunity to submit comments to the FAA. Another initiative was the video format that was used to explain various stages throughout the study. Volume 4 of the video series specifically outlines noise abatement strategies and identifies the Preferred Alternative.

Although the public comment period had closed, at the request of Congressman Eliot Engle, FAA agreed to attend a meeting held in Rockland County, New York on July 30, 2007 to respond to questions and hear the concerns raised by citizens. Approximately one thousand people attended the meeting. A transcript of the meeting was taken by Rockland County and is posted on the project web site at: www.faa.gov/nynjphl_airspace_redesign. A large majority of the people expressed a desire for FAA to adopt the No Action Alternative. Others expressed an interest in moving the arrival flight track which passes over Rockland County further to the west between 3 to 5 miles. Questions raised included whether FAA could increase the altitude of the flight tracks over Rockland County. One inquiry that was raised was whether the FAA could include a stipulation in the FAA's Record of Decision requiring commercial aircraft using the approach track to EWR be Stage 4 compliant by a specified year. In addition, there were a number of quality of life concerns. The comments at the Rockland County meetings were consistent with the comments received at the other meetings. These comments did not change the outcome of our decision.

VIII. Comments on the FEIS

The FAA received six comment letters on the FEIS. Although not required, the FAA reviewed the comments and to the extent the commenter raised a new issue, the FAA herein provides a response.

Mr. Tim Stull, Manager of Air Traffic Systems at United Parcel Post (UPS)

EWR Night-time Ocean Routing would cause a significant operational burden to UPS, likely cause an increase in emissions over parts of Staten Island area and add significant complexity to the New York Metro Air Traffic Area, increase flight time for departures which increase costs and potential for significant downline disruption to our nework.

The commenter is correct that nighttime ocean routing will likely increase flight time for departures, fuel burn, and emissions and will require greater sophistication in traffic management. The increase in demand at JFK since the operational analysis of this mitigation measure was completed has changed in the operating environment. Appendix O of the Final EIS states, "Since there are so few JFK flights affected during the nighttime hours between 0230 and 1000 GMT (Greenwich Mean Time), [night-time ocean routing] would not have an impact on the operations." This is no longer a completely accurate description of the night-time operations at JFK. Bad weather and volume during the day push JFK arrivals late into the night. On 32 days in June and July, JFK was accepting arriving aircraft at a rate of 30 per hour until midnight (0400 GMT). On 15 days, that rate continued until 1 AM (0500 GMT). These arrival rates are not compatible with ocean routing from EWR, since when the over-water airspace is already occupied by JFK arrivals, it is very inefficient to use it for crossing flows of EWR departures. In this operating environment, predictability also suffers. It will frequently not be known until the evening whether the ocean route is safe or not on any given night, so the dispatchers will not know in advance whether to plan for the extra flying time or not. As to increased fuel consumption, FEIS Appendix R shows that night-time ocean routing causes the fleet to burn (on average) seven metric tons per day of extra fuel. This reduces the fuel-consumption benefit of the preferred alternative by some 3.5%. The FAA will carefully monitor traffic levels at JFK after we implement this mitigation measure to determine whether there are new circumstances that make it operationally infeasible. If it is necessary to revise or eliminate this measure then we will reevaluate the FEIS, undertake appropriate environmental review, and amend this ROD.

Kroposki

Mr. Michael Kroposki, Esq. makes five points:

> 1) *The acquisition of Stewart International Airport by the Port Authority means that future demand will be directed there. Traffic at EWR will not grow high enough to make redesigned airspace beneficial.*

Stewart International Airport is far from New York City. History shows that when a new airport farther from the population center is opened, it takes decades for traffic to build to levels that rival the old, close-in airport, even when laws are passed restricting use of the old airport. Examples are Dulles International and National Airport in Washington, and JFK and LaGuardia in New York. In Dallas, when Dallas-Ft. Worth International Airport opened, Love Field was scheduled to be closed. Despite this, demand for close-in air service remained high enough that, thirty years later, Love Field is still an important airport, handling two-thirds as much traffic as LGA. It can not be assumed that the availability of Stewart will reduce demand at EWR in the foreseeable future.

> 2) *The forecast levels of traffic at EWR are too high. Realistic future traffic levels will be low enough that the delay savings in the Preferred Alternative will not be worth the extra mileage that aircraft must fly.*

The forecast levels of traffic for EWR used in the operational analysis were 1575 arrivals and departures on the 90th percentile day in 2006 and 1634 on the 90th percentile day in 2011. It is important to compare these numbers to high-traffic days, not to monthly or yearly totals. According to the FAA's official traffic reporting system, the Operations Network (or "OPSNET"), on the 90th percentile day of July 2006 EWR worked 1572 operations. The forecast was right on. The comparable number for July 2007 was 1554, less than 2% below the forecast. It is correct that traffic at EWR has effectively leveled off, but it has leveled off at the forecast level. The forecast growth in demand between 2006 and 2011 can not be refuted by pointing to counts of traffic actually handled, since the traffic actually handled is limited by the inefficiency of the current system. EWR was not forecast to be able to run dual arrivals in 2006, so actual counts match the forecast fairly well. Without dual arrivals, actual traffic at EWR may remain at the current plateau (with small increases for improved technology), but unmet demand will continue to accumulate, dragging down the local economy. The 3-4% increase anticipated in the 90th percentile day in this study is a reasonable and prudent assumption.

> 3) *The 2011 forecast is not far enough in the future to satisfy the requirements of a five-year horizon for future traffic.*

This assertion seems to contradict the second point. If the traffic forecasts are too high for 2011, then they are certainly on target for some year after 2011. The increase in traffic between 2011 and 2012 will not be great enough to change the qualitative conclusions of this study, so the study remains valid.

> 4) *The forecasts are too high because future year forecasts are based on an assumption of good weather on all days. A substantial portion of the delay savings can not be realized, because the airport is sometimes closed due to severe weather.*

It is not the purpose of an airspace redesign to increase efficiency at an airport that is closed by thunderstorms. The efficiency of the airspace design is most important on high-traffic days. When annualized benefit numbers are quoted, they include the effect of days when severe weather limits the traffic the modeled airports can handle.

> 5) *Given that the dual arrivals at EWR are what necessitates the realignment of LGA traffic that is his particular concern, the LGA realignment should not be implemented until such time as EWR traffic has grown to require it.*

This is a valid point, and is well taken. As indicated above, EWR traffic has already grown to a point where dual arrivals would be a benefit to users of the airspace and to the local economy.

New Jersey Coalition Against Aircraft Noise (NJCAAN)

The letter from NJCAAN makes three points, since most of their cited sources discuss various techniques of demand management. First, the study did not include demand management, which can reduce delays more effectively than an airspace redesign. Second, that the Integrated Noise Model has been shown to underestimate noise from several types of aircraft, so the noise estimates in the study are incorrect. Third, that the increased flying distances in the Preferred Alternative will increase fuel consumption to a point that the fuel savings from decreased delay will be more than offset, and the result will be increased emissions from aircraft engines.

1) Demand Management obviates the need for airspace redesign.

In Appendix Q, comments on demand management received the response that the FAA did not include demand management as an alternative because "Changing access to the airport is the responsibility of the airport proprietor. The airport proprietor is unlikely to force its customers to operate in a manner that seems to them less profitable." The Port Authority of New York and New Jersey appears much closer to a demand management program in August 2007 than when Appendix Q was written, but the fundamental fact remains true: An airport operator is unlikely to let airport capacity go to waste. A change to larger aircraft will absorb the increase in passenger demand, but will not reduce the number of operations. For reasons stated above in the responses to Mr. Kroposki, the opening of Stewart International Airport is unlikely to affect EWR operations in the forecast time frame.

The INM underestimates aircraft noise.

Noise modeling with the INM and NIRS necessarily makes simplifying assumptions. The cited research shows that, under atmospheric conditions that cause the least attenuation of noise from aircraft, the INM underestimates single-event noise levels from Boeing 767-300 and 737-400 aircraft. The INM is almost exact for B747-400, and has some overestimates and some underestimates for the A320-111. This study was conducted in accordance with the techniques set out in FAA Order 1050.1E, which mandates the use of DNL estimates calculated by INM and NIRS for noise studies, and sets thresholds for reportable noise changes. The thresholds are defined in terms of INM and NIRS results, not in terms of measured sound levels. Therefore, a systematic bias in the INM will not affect the validity of the study, since the same bias is present in the measurements and in the thresholds against which they are compared. The differences between the estimated noise levels and the thresholds will be correct.

> *The Preferred Alternative will increase fuel consumption.*

The Preferred Alternative requires some extra flying distance in order to avoid congestion, much the same way a freeway bypasses the traffic lights in town. When traffic levels are low, it is not worth it to take the freeway. However, as mentioned above, traffic levels in the summer of 2007 are already high enough that the extra mileage would be worth flying to reduce delays, and total fuel consumption will decrease.

Rockland County

The letter from the Chair of the Rockland County Legislature makes five points.

> *1) The Noise Mitigation Analysis in Appendix P does not compare the mitigation of the Preferred Alternative with Future No Action, but only with the Preferred Alternative without mitigation.*

This is incorrect. Tables 4, 5, 8, 9, 11, 12, 13, and 14, and Figures 4, 5, 12, 13, 18, 19, 23, 24, 26, 27, 29, and 32 of Appendix P contain this information.

> *2) The Modifications Alternative should be investigated, since "This would eliminate the "controversial Newark Runway 22 flight path over Rockland".*

The Modifications Alternative was thoroughly investigated in Appendices C and E of the EIS. Its benefits to the aviation system were found to be insufficient to make it the Preferred Alternative.

> *3) Does the FAA have hard evidence on how 600 flights per day over Rockland County will affect air quality?*

Aircraft emissions affect air quality in two different ways. First, aircraft on the ground and at altitudes below the so-called "mixing layer" (usually about 1500-2000 feet above ground level) emit exhaust that behaves like car exhaust. It stays in the vicinity where it is generated, and can pollute the air near the airport. These low-altitude fuel emissions are reduced by the Preferred Alternative, but this is irrelevant to Rockland County, since the aircraft never come low enough. Above the mixing layer, winds blow aircraft emissions around freely, so the effect is not localized. These emissions could affect Rockland County, as well as all other counties in the area. The fuel burn analysis in Appendix R shows that these emissions will decrease under the Preferred Alternative.

> *4) How will flights over Rockland County, and the attendant risk of an aircraft disaster, affect the quality of the water in their aquifer?*

Flights over Rockland County are high enough that normal operations will not affect aquifers, which are underground. An aircraft crash could, as a tertiary effect, cause a small amount of toxins to get into the ground, which may affect an aquifer. The FAA is dedicated to reducing aircraft disasters as far as is humanly possible.

> *5) "Increased airplane noise will have a negative effect on the enjoyment of our open spaces as well as a negative effect on the fauna of our parks."*

The noise exposures in Rockland County under the Preferred Alternative, are higher than in the Future No Action Alternative, but they are at the bottom of the thresholds set in Federal regulations. Those thresholds were set by considering outdoor enjoyment, among other factors. When mitigation measures such as Continuous-Descent Approaches are included, Rockland County noise exposures fall below the thresholds, and are not forecast to cause such negative effects.

Congressman Eliot L. Engel, dated 8/31/07

Comments noted. The points expressed in Congressman Eliot Engel's letter have been addressed individually in the Final EIS.

A transcript of the July 30, 2007 public meeting held at the request of Congressman Eliot Engle is available for review on the project web site at www.faa.gov/nynjphl_airspace_redesign

On August 31, 2007, the FAA received an additional comment letter from attorneys representing Rockland County, New York. The FAA has completed a preliminary review of this letter and its attachments. The letter raises issues that have already been addressed by the FAA during the public comment process. As such, the FAA is not providing additional responses to this letter. A copy of this letter and attachments is included in Appendix D.

IX. Agency Findings

In accordance with all applicable laws, the FAA makes the following finding for this selected Project. These findings are based on a careful review of the EIS, appropriate supporting evidence and other relevant portions of the administrative record.

A. Airspace redesign will ensure the safety of aircraft and the efficient use of airspace. (49 U.S.C. 40103(b))

The Federal Aviation Act of 1958 gives the Administrator the authority and responsibility to assign by order or regulation the use of the navigable airspace in order to ensure the safety of aircraft and the efficient use of the airspace. In its effort to continually ensure safety of aircraft and improve the efficiency of transit through the navigable airspace, the FAA will modify aircraft routes and air traffic control procedures used in a 31,180 square miles area encompassing the entire state of New Jersey and portions of four other states: Connecticut, Delaware, New York, and Pennsylvania (the study area). The selected project will more efficiently deliver aircraft to and from airports in the study area, with limited affect on other airports in the study area. This will enhance the efficiency of the navigable airspace, while reducing the future environmental impact of aircraft operations in the NY/NJ/PHL metropolitan area.

In choosing the selected project, the FAA evaluated a full range of alternatives for airspace redesign. The selected alternative will best accomplish the goals of airspace redesign, enhance the safety of aircraft, protect persons and property on the ground, and improve the efficiency of the airspace. Additionally, not only is the selected alternative effective at reducing overall noise exposure as compared to the original Preferred Alternative, but it also reduces noise relative to the Future No Action Airspace Alternative for persons exposed to 65 DNL or greater noise levels in 2011.

B. This project does not involve the use of any historic sites or other properties protected under Department of Transportation Section -303(e), also known as Section 4(f) or convert recreation areas protected under Land and Water Conservation Act Section 6(f).

The selected project does not involve physical development or modification of facilities and therefore results in no actual, physical use of resources protected under DOT Section 4(f) or conversion of properties protected under Land and Water Conservation Act Section 6(f). However, it would change airspace design and flight paths at some high and low altitudes to make more efficient use of existing airspace and airport runways. It has the potential to cause constructive use because it would increase flights over some areas and decrease flights over others, eliminate some flight paths and create some new flight paths.

The determination that the selected project would not cause a use of historic properties listed on or eligible for listing on the National Register of Historic Places is based upon consultation under Section 106 of the National Historic Preservation Act with the State Historic Preservation Officers in each State within the Study area.

As to constructive use of other 4(f) resources, the analysis in the EIS and the additional analysis included in the ROD in response to DOI comments, confirm that the selected project would not cause increases in noise or other proximity impacts sufficient to impair the value of those resources. The additional analysis in the ROD focused upon parks and historic properties identified as having a quiet setting as a generally recognized purpose and attribute that were projected to experience increases in noise of 3 DNL dB or greater and those having important vistas. As a safeguard the FAA commits in this ROD to apply an adaptive management approach in implementing the selected project. Unlike putting a highway next to a sacred site, these revised flight paths are somewhat flexible and lend themselves to the use of adaptive management techniques.

C. There are no disproportionately high or adverse human or environmental effects from the project on minority or low-income populations. (Executive Order 12898)

The environmental justice analysis in the EIS examined the areas significantly impacted by noise for disproportionately high and adverse human and environmental impacts to low income and minority communities. FEIS Section 5.3.2 indicated that the addition of mitigation measures to the preferred alternative (the selected project) would cause significant noise impacts in a residential area west of PHL in 2006. However, the selected project would eliminate all potentially significant noise impacts by 2011. The population in the area significantly impacted in 2006 is not 50% minority, nor does the significantly impacted area contain a meaningfully greater percentage of minorities than the surrounding area. The median income in the significantly impacted area is above the poverty level. Additionally, reasonable efforts were made to involve minority and low-income populations in the EIS process. Therefore, the selected project would not cause a disproportionately high and adverse human or environmental impact on minority or low income populations in 2006 or 2011.

D. Clean Air Act, Section 176(c)(1) Conformity Determination (42 U.S.C. §7506(c))

The DEIS, FEIS, and this ROD address general conformity requirements under the Clean Air Act. The selected project is an air traffic control activity and adoption of approach, departure, and en route procedures for air operations which is either exempt under 40 CFR 93.153(c) or presumed to conform and not regionally significant under 72 Fed. Reg. 41565, July 30 2007. The fuel burn analysis in FEIS Appendix R confirms that the selected project will reduce fuel and emissions in comparison to the No Action Alternative and is therefore exempt from detailed analysis under the Clean Air Act. The analysis indicated that the Preferred Alternative with and without mitigation reduced fuel burn when compared to the Future No Action Alternative.

The NY/NJ/PHL Airspace Redesign would not result in development of physical facilities. Nor will it be likely to induce, change, or redistribute traffic in the airspace or at the airports in the study area. Air and vehicular traffic will continue to be governed by passenger preferences based upon ticket prices, airport location, and service to desired destinations, not the efficiency of air traffic procedures and airspace design. In sum, detailed analysis was not necessary to conclude that the selected project conforms with the purposes of the SIPs in the six States within the Study Area. By its very nature it will not cause a new violation of the NAAQS, worsen an existing violation, or delay meeting the standards of the carbon monoxide, ozone, sulfur dioxide, and particulate matter NAAQS in the six states within the Study Area.

E. The FAA has given this proposal the independent and objective evaluation required by the Council on Environmental Quality (40 CFR §1506.5)

As described in the NY/NJ/PHL Airspace Redesign Final EIS and in Section IV of this ROD [when almost complete, double check that Alternatives are still discussed in Section 3], FAA employed a detailed process in identifying reasonable alternatives that led to identification of a preferred alternative. Throughout, numerous FAA air traffic control specialists provided expertise and guidance on technical matters that arose during the formative steps. The FAA evaluated the technical feasibility of the Proposed Action and determined the alternatives to be evaluated for potential implementation. The proposed NY/NJ/PHL Airspace Redesign represents the best judgment of the FAA in its key area of expertise: the safe, orderly and expeditious movement of air traffic.

Similarly, the FAA has conducted an independent review of the factual assumptions contained in the NY/NJ/PHL Airspace Redesign Final EIS. The process began with a competitive selection of an independent EIS contractor, continued throughout preparation of a Draft EIS and Final EIS and culminated in this ROD.

Individuals from the FAA have devoted many hours to ensure compliance with NEPA and other environmental requirements. The Agency's responses to the public comments on the environmental impacts of the Proposed Action are detailed and comprehensive. This ROD also describes the great care and attention that was paid to public environmental concerns, particularly noise. Accordingly, the independent and objective evaluation called for by the Council on Environmental Quality has been provided.

F. Endangered Species Act, 16 U.S.C. Sections 1531-1544.

Pursuant to the Endangered Species Act (ESA), the FAA contacted the Fish and Wildlife Service and local authorities to compile a list of federally and stated endangered and threatened species in the Study Area. This list is set forth in Appendix G of the EIS, in the DEIS and the FEIS, the FAA concluded that the proposed action will not have a significant impact on fish or plants because the proposed action does not require ground disturbance and does not modify critical habitat.

Subsequent to that finding, the FAA agreed to consider the Department of Interior's request to impose flight restrictions over piping plover, bald eagle and roseate tern nesting sites. The piping plover and bald eagle have established nests under the current air traffic situation and have demonstrated a tolerance for such activity. There is no currently no documented nesting sites for the roseate tern.

The FAA has determined that the bald eagle, a species that is no longer listed pursuant to the Endangered Species Act, is not affected by the selected project. The FAA has also determined that the selected project as compared to the no-action alternative does not affect the piping plover or the roseate tern. On September 5, 2007, the FAA responded to the FWS and obtained FWS concurrence that the selected project is not likely to adversely affect these two species.

G. Responsibilities of Federal Agencies to Protect Migratory Birds (Executive Order 13186).

Executive Order 13186, enacted to further the purposes of the Migratory Bird Treaty Act (MBTA), recognizes the importance of migratory birds. The selected project includes changes in aircraft routes and thus the potential for bird strikes (for migratory and non-migratory) was assessed in the EIS. The Bird Strike Impact Assessment found that various bird categories are already impacted from operations at EWR, HPN, ISP, JFK, LGA and PHL. Each of these airports has a Wildlife Hazard Management Plan and are subject to a 2003 Memorandum of Agreement with the Fish and Wildlife Service and other federal agencies to address aircraft wildlife strikes. The selected project will not increase existing impacts to migratory birds. There are no significant impact to migratory birds from the selected Project.

X. Decision and Order

In the Final EIS, the FAA identified the Integrated Airspace Alternative Variation with ICC as the Preferred Alternative for the NY/NJ/PHL Metropolitan Area Airspace Redesign Project. Among the alternatives studied, the Integrated Airspace Alternative with ICC best meets the purpose and need of the project, which is to improve the efficiency and reliability of the airspace structure and air traffic control system from southern Connecticut to eastern Delaware. Only the Integrated Airspace Alternative with ICC provides for considerable operational benefit. The Integrated Airspace Alternative with ICC is a new concept in airspace design. Currently, the airspace is a layered structure, consisting of en route and terminal airspace. Each layer includes a finite piece of airspace defined by lower and upper altitude limits and defined geographic boundaries. The Integrated Airspace Alternative with ICC would alter the limits of these finite pieces of airspace such that several operational benefits would occur including:

- A reduction in the complexity of the current air traffic system operation in New York/New Jersey/ Philadelphia,
- A reduction in delays and the expeditious arrival and departure of aircraft,
- Improved flexibility in routing aircraft,

- A more balanced controller workload, and
- An increase in the FAA's ability to meet system demands.

The FAA identified mitigation measures to minimize the potentially significant noise impacts of the preferred alternative, without substantially diminishing its benefits. Benefits of the selected project (the Integrated Airspace Alternative with ICC with mitigation) include:

- An estimated 20% reduction in airport delay, once implementation is complete, compared to the No Action Alternative. ROD Table 2.6
- Air traffic congestion nationwide is expected to cost $46 billion to the nation's economy in 2010. This includes costs to airlines and passengers, loss of service to people who wish to travel, and over 200,000 lost jobs in aviation and other industries. NY/NJ/PHL airspace will handle 15-20% of all the air traffic in the nation in 2011, so the inefficiencies addressed here could yield benefits to air carriers, passengers, and local businesses of $7 billion to $9 billion in 2011.
- Projected reduction in fuel consumption and emissions, including carbon dioxide and other greenhouse gas emissions. Once completely implemented, it is expected to reduce annual operating costs

(largely fuel consumption) by $248 million and severe weather delay costs by another $37 million.

- Reduced noise exposure for more than one half million compared to the No Action Alternative.

Decision

After careful and thorough consideration of the facts contained herein, the undersigned finds that the proposed Federal action is consistent with existing national environmental policies and objectives as set forth in Section 101(a) of the National Environmental Policies Act of 1969 (NEPA) and that it will not significantly effect the quality of the human environment or otherwise include any condition requiring consultation pursuant to Section 102(2)(C) of NEPA.

Having carefully considered the aviation safety and operational objectives of this action, as well as being properly advised as to the anticipated environmental impacts, under the authority delegated to me by the Administrator of the FAA, I find that the action is reasonably supported, and I, therefore, direct the NY/NJ/PHL metropolitan area airspace redesign be implemented. Implementation of the selected project will begin as soon as practicable after the ROD. Based on information from specialists in the agency, I estimate full implementation of the selected alternative to take five years.

Original signed on September 5, 2007.

/s/ ______________________________ Date: __________

John G. McCartney
Acting Director, Terminal
Operations
Eastern Service Area
Federal Aviation Administration

Right of Appeal: This decision is taken pursuant to 49 U.S.C. §§40101 *et seq.*, and constitutes an order of the Administrator which is subject to review by the Courts of Appeal of the United States in accordance with the provisions of 49 U.S.C. §46110.

Any party seeking to stay the implementation of this ROD must file an application with the FAA prior to seeking judicial relief, as provided in Rule 18(a), Federal Rules of Appellate Procedure.

I have reviewed the changes contained in the Errata to the Record of Decision dated September 14, 2007. The changes contained in the Errata are not substantive and have been incorporated within this corrected version of the ROD. The Corrected ROD does not alter the decision of September 5, 2007 in any way and is issued merely for case of reference.

/s/ John McCartney Date: 10/4/07

John G. McCartney
Acting Director, Terminal
Operations
Eastern Service Area
Federal Aviation Administration

United States Court of Appeals
FOR THE DISTRICT OF COLUMBIA CIRCUIT

No. 07-1363

County of Rockland,
New York,

Petitioner

v.

Federal Aviation
Administration,

Respondent

Consolidated with 07-1437, 07-1493, 07-1494, 07-1495, 07-1496, 07-1497, 07-1498, 07-1499, 08-1105, 08-1106, 08-1107

September Term 2008

FAA-ROD09/05/07

Filed On:
August 19, 2009

BEFORE: Sentelle, Chief Judge, and Ginsburg, Circuit Judge, and Randolph, Senior Circuit Judge

ORDER

Upon consideration of the petitions for panel rehearing filed by petitioners County of Rockland, New York, et al., County of Delaware, Pennsylvania, et al., and City of Elizabeth, New Jersey, et al., it is

ORDERED that the petitions be denied.

Per Curiam

FOR THE COURT:
Mark J. Langer, Clerk

By: /s/
Michael C. McGrail
Deputy Clerk

United States Court of Appeals
FOR THE DISTRICT OF COLUMBIA CIRCUIT

No. 07-1363

County of Rockland,
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v.

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Administration,
Respondent

Consolidated with 07-1437, 07-1493, 07-1494, 07-1495, 07-1496, 07-1497, 07-1498, 07-1499, 08-1105, 08-1106, 08-1107

September Term 2008

FAA-ROD09/05/07

Filed On:
August 19, 2009

BEFORE: Sentelle, Chief Judge, and Ginsburg, Henderson, Rogers, Tatel, Garland, Brown, Griffith, and Kavanaugh, Circuit Judges, and Randolph, Senior Circuit Judge

ORDER

Upon consideration of the petitions for rehearing en banc filed by petitioners County of Rockland, New York, et al., County of Delaware, Pennsylvania, et al., and City of Elizabeth, New Jersey, et al., and the absence of a request by any member of the court for a vote, it is

ORDERED that the petitions be denied.

Per Curiam

FOR THE COURT:
Mark J. Langer, Clerk

By: /s/
Michael C. McGrail
Deputy Clerk

TITLE 42. THE PUBLIC HEALTH AND WELFARE
CHAPTER 55.
NATIONAL ENVIRONMENTAL POLICY
POLICIES AND GOALS

42 USCS § 4332

§ 4332. Cooperation of agencies; reports; availability of information; recommendations; international and national coordination of efforts

The Congress authorizes and directs that, to the fullest extent possible: (1) the policies, regulations, and public laws of the United States shall be interpreted and administered in accordance with the policies set forth in this Act [42 USCS §§ 4321 et seq.], and (2) all agencies of the Federal Government shall –

(A) utilize a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decision-making which may have an impact on man's environment;

(B) identify and develop methods and procedures, in consultation with the Council on Environmental Quality established by subchapter II of this Act [42 USCS §§ 4341 et seq.], which will insure that presently unquantified environmental amenities and values may be given appropriate consideration in decisionmaking along with economic and technical considerations;

(C) include in every recommendation or report on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment, a detailed statement by the responsible official on –

(i) the environmental impact of the proposed action,

(ii) any adverse environmental effects which cannot be avoided should the proposal be implemented,

(iii) alternatives to the proposed action,

(iv) the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and

(v) any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented.

Prior to making any detailed statement, the responsible Federal official shall consult with and obtain the comments of any Federal agency which has jurisdiction by law or special expertise with respect to any environmental impact involved. Copies of such statement and the comments and views of the appropriate Federal, State, and local agencies, which are authorized to develop and enforce environmental standards, shall be made available to the President, the Council on Environmental Quality and to the public as provided by section 552 of title 5, United States Code, and shall accompany the proposal through the existing agency review processes;

(D) Any detailed statement required under subparagraph (C) after January 1, 1970, for any major Federal action funded under a program of grants to States shall not be deemed to be legally insufficient solely by reason of having been prepared by a State agency or official, if:

(i) the State agency or official has statewide jurisdiction and has the responsibility for such action,

(ii) the responsible Federal official furnishes guidance and participates in such preparation,

(iii) the responsible Federal official independently evaluates such statement prior to its approval and adoption, and

(iv) after January 1, 1976, the responsible Federal official provides early notification to, and solicits the views of, any other State or any Federal land management entity of any action or any alternative thereto which may have significant impacts upon such State or affected Federal land management entity and, if there is any disagreement on such impacts, prepares a written assessment of such impacts and views for incorporation into such detailed statement.

The procedures in this subparagraph shall not relieve the Federal official of his responsibilities for the scope, objectivity, and content of the entire statement or of any other responsibility under this Act [42 USCS §§ 4321 et seq.]; and further, this subparagraph does not affect the legal sufficiency of statements prepared by State agencies with less than statewide jurisdiction.[;]

(E) study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources;

(F) recognize the worldwide and longrange character of environmental problems and, where consistent with the foreign policy of the United States, lend appropriate support to initiatives, resolutions, and programs designed to maximize international cooperation in anticipating and preventing a decline in the quality of mankind's world environment;

(G) make available to States, counties, municipalities, institutions, and individuals, advice and information useful in restoring, maintaining, and enhancing the quality of the environment;

(H) initiate and utilize ecological information in the planning and development of resource-oriented projects; and

(I) assist the Council on Environmental Quality established by title II of this Act [42 USCS §§ 4341 et seq.].

TITLE 49. TRANSPORTATION
SUBTITLE I. DEPARTMENT OF TRANSPORTATION
CHAPTER 3. GENERAL DUTIES AND POWERS
SUBCHAPTER I. DUTIES OF THE SECRETARY OF TRANSPORTATION

§ 303. Policy on lands, wildlife and waterfowl refuges, and historic sites

(a) It is the policy of the United States Government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites.

(b) The Secretary of Transportation shall cooperate and consult with the Secretaries of the Interior, Housing and Urban Development, and Agriculture, and with the States, in developing transportation plans and programs that include measures to maintain or enhance the natural beauty of lands crossed by transportation activities or facilities.

(c) Approval of programs and projects. Subject to subsection (d), the Secretary may approve a transportation program or project (other than any project for a park road or parkway under section 204 of title 23) requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance (as determined by the Federal, State, or local officials having jurisdiction over the park, area, refuge, or site) only if –

(1) there is no prudent and feasible alternative to using that land; and

(2) the program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.

(d) De minimis impacts.

(1) Requirements.

(A) Requirements for historic sites. The requirements of this section shall be considered to be satisfied with respect to an area described in paragraph (2) if the Secretary determines, in accordance with this subsection, that a transportation program or project will have a de minimis impact on the area.

(B) Requirements for parks, recreation areas, and wildlife or waterfowl refuges. The requirements of subsection (c)(1) shall be considered to be satisfied with respect to an area described in paragraph (3) if the Secretary determines, in accordance with this subsection, that a transportation program or project will have a de minimis impact on the area. The requirements of subsection (c)(2) with respect to an area described in paragraph (3) shall not include an alternatives analysis.

(C) Criteria. In making any determination under this subsection, the Secretary shall consider to be part of a transportation program or project any avoidance, minimization, mitigation, or enhancement measures that are required to be implemented as a condition of approval of the transportation program or project.

(2) Historic sites. With respect to historic sites, the Secretary may make a finding of de minimis impact only if –

(A) the Secretary has determined, in accordance with the consultation process required under section 106 of the National Historic Preservation Act (16 U.S.C. 470f), that –

(i) the transportation program or project will have no adverse effect on the historic site; or

(ii) there will be no historic properties affected by the transportation program or project;

(B) the finding of the Secretary has received written concurrence from the applicable State historic preservation officer or tribal historic preservation officer (and from the Advisory Council on Historic Preservation if the Council is participating in the consultation process); and

(C) the finding of the Secretary has been developed in consultation with parties consulting as part of the process referred to in subparagraph (A).

(3) Parks, recreation areas, and wildlife or waterfowl refuges. With respect to parks, recreation areas, or wildlife or waterfowl refuges, the Secretary may make a finding of de minimis impact only if –

(A) the Secretary has determined, after public notice and opportunity for public review and comment, that the transportation program or project will not adversely affect the activities, features, and attributes of the park, recreation area, or wildlife or waterfowl refuge eligible for protection under this section; and

(B) the finding of the Secretary has received concurrence from the officials with jurisdiction over the park, recreation area, or wildlife or waterfowl refuge.

TITLE 49. TRANSPORTATION
SUBTITLE VII. AVIATION PROGRAMS
PART A. AIR COMMERCE AND SAFETY
SUBPART IV. ENFORCEMENT AND PENALTIES
CHAPTER 461.
INVESTIGATIONS AND PROCEEDINGS

§ 46110. Judicial review

(a) Filing and venue. Except for an order related to a foreign air carrier subject to disapproval by the President under section 41307 or 41509(f) of this title [49 USCS § 41307 or 41509(f)], a person disclosing a substantial interest in an order issued by the Secretary of Transportation (or the Under Secretary of Transportation for Security with respect to security duties and powers designated to be carried out by the Under Secretary or the Administrator of the Federal Aviation Administration with respect to aviation duties and powers designated to be carried out by the Administrator) in whole or in part under this part [49

USCS §§ 40101 et seq.], part B [49 USCS §§ 47101 et seq.], or subsection (l) or (s) of section 114 [49 USCS § 114] may apply for review of the order by filing a petition for review in the United States Court of Appeals for the District of Columbia Circuit or in the court of appeals of the United States for the circuit in which the person resides or has its principal place of business. The petition must be filed not later than 60 days after the order is issued. The court may allow the petition to be filed after the 60th day only if there are reasonable grounds for not filing by the 60th day.

(b) Judicial procedures. When a petition is filed under subsection (a) of this section, the clerk of the court immediately shall send a copy of the petition to the Secretary, Under Secretary, or Administrator, as appropriate. The Secretary, Under Secretary, or Administrator shall file with the court a record of any proceeding in which the order was issued, as provided in section 2112 of title 28.

(c) Authority of court. When the petition is sent to the Secretary, Under Secretary, or Administrator, the court has exclusive jurisdiction to affirm, amend, modify, or set aside any part of the order and may order the Secretary, Under Secretary, or Administrator to conduct further proceedings. After reasonable notice to the Secretary, Under Secretary, or Administrator, the court may grant interim relief by staying the order or taking other appropriate action when good cause for its action exists. Findings of fact by the Secretary, Under Secretary, or Administrator, if supported by substantial evidence, are conclusive.

(d) Requirement for prior objection. In reviewing an order under this section, the court may consider an objection to an order of the Secretary, Under Secretary, or Administrator only if the objection was made in the proceeding conducted by the Secretary, Under Secretary, or Administrator or if there was a reasonable ground for not making the objection in the proceeding.

(e) Supreme Court review. – A decision by a court under this section may be reviewed only by the Supreme Court under section 1254 of title 28.

TITLE 40 – PROTECTION OF ENVIRONMENT CHAPTER V – COUNCIL ON ENVIRONMENTAL QUALITY PART 1506 – OTHER REQUIREMENTS OF NEPA

§ 1506.6 Public involvement.

Agencies shall:

(a) Make diligent efforts to involve the public in preparing and implementing their NEPA procedures.

(b) Provide public notice of NEPA-related hearings, public meetings, and the availability of environmental documents so as to inform those persons and agencies who may be interested or affected.

(1) In all cases the agency shall mail notice to those who have requested it on an individual action.

(2) In the case of an action with effects of national concern notice shall include publication in the Federal

Register and notice by mail to national organizations reasonably expected to be interested in the matter and may include listing in the 102 Monitor. An agency engaged in rulemaking may provide notice by mail to national organizations who have requested that notice regularly be provided. Agencies shall maintain a list of such organizations.

(3) In the case of an action with effects primarily of local concern the notice may include:

(i) Notice to State and areawide clearinghouses pursuant to OMB Circular A-95 (Revised).

(ii) Notice to Indian tribes when effects may occur on reservations.

(iii) Following the affected State's public notice procedures for comparable actions.

(iv) Publication in local newspapers (in papers of general circulation rather than legal papers).

(v) Notice through other local media.

(vi) Notice to potentially interested community organizations including small business associations.

(vii) Publication in newsletters that may be expected to reach potentially interested persons.

(viii) Direct mailing to owners and occupants of nearby or affected property.

(ix) Posting of notice on and off site in the area where the action is to be located.

(c) Hold or sponsor public hearings or public meetings whenever appropriate or in accordance with statutory requirements applicable to the agency. Criteria shall include whether there is:

(1) Substantial environmental controversy concerning the proposed action or substantial interest in holding the hearing.

(2) A request for a hearing by another agency with jurisdiction over the action supported by reasons why a hearing will be helpful. If a draft environmental impact statement is to be considered at a public hearing, the agency should make the statement available to the public at least 15 days in advance (unless the purpose of the hearing is to provide information for the draft environmental impact statement).

(d) Solicit appropriate information from the public.

(e) Explain in its procedures where interested persons can get information or status reports on environmental impact statements and other elements of the NEPA process.

(f) Make environmental impact statements, the comments received, and any underlying documents available to the public pursuant to the provisions of the Freedom of Information Act (5 U.S.C. 552), without regard to the exclusion for interagency memoranda where such memoranda transmit comments of Federal agencies on the environmental impact of the proposed action. Materials to be made available to the public shall be provided to the public without charge to the extent practicable, or at a fee which is not more than the actual costs of reproducing copies required to be sent to other Federal agencies, including the Council.

Appendix B – Additional Analysis

In Section 5.3.5.1 of the FEIS the FAA committed to conduct further evaluation, in consultation with appropriate federal and state officials, to determine whether predicted noise increases or visual changes over affected areas of the 4(f) resources listed in Table B.1 would result in a constructive use. FAA further indicated that it would include the results of this evaluation and any necessary additional 4(f) analysis and determination in this Record of Decision. The additional analysis is provided below.

Table B.1

4(f) Properties Subject to Additional Noise/Visual Evaluation

4(f) Property	**Noise**	**Visual**
Appalachian National Scenic Trail,	X	X
Delaware and Lehigh National Heritage Corridor	X	
Delaware Water Gap National Recreation Area	X	
Home of Franklin D. Roosevelt National Historic Site and the Vanderbilt Mansion National Historic Site		X
Hopewell Furnace National Historic Site,	X	
Upper Delaware Scenic & Recreational River	X	
Weir Farm National Historic Site,	X	
Wallkill River National Wildlife Refuge,	X	

Catskill Park (Big Indian – Beaverkill Range Wilderness Area, Slide Mountain Wilderness Area, Westkill Mountain Wilderness Area).	X	

Additional Noise Evaluation

If any point within one of the subject Section 4(f) properties would experience a change in noise level as a result of the selected Project greater than 3.0 DNL, the FAA conducted further evaluation of the property in consultation with the NPS and New York State Department of Environmental Conservation.

Additional 409 Resources To Which Part 150 Guidelines Apply.

Upon additional review, the FAA has determined that a quiet setting does not appear to be a generally recognized feature or attribute of the significance for several of the sites that were identified for further study in the FEIS, These sites are the Hopewell Furnace National Historic Site, Upper Delaware Scenic and Recreational River, and the Delaware and Lehigh Canal National Heritage Corridor.

Hopewell Furnace National Historic Site. The purpose of the Hopewell Furnace National Historic Site is to preserve and interpret iron plantation life and operations, and to enhance public understanding of the American evolution of American iron-making and its impact on the region and the nation. Based on this purpose and the characteristics of the site, the FAA has concluded that for the Hopewell Furnace National Historic Site a quiet setting is not a generally recognized feature or attribute of this site's significance and therefore the thresholds listed in the Part 150 guidelines apply. The noise exposure levels resulting from the selected project at all the points within the site are 40.0 DNL, or less. This is well below the Part 150 noise exposure level compatibility guidelines and 5 decibels lower than the target level for soundproofing the interior of homes. Additionally, since the Hopewell Furnace National Historic Site is a historic property, the finding under Section 106 may be used to determine whether there would be a constructive use. The Hopewell Furnace National Historic Site is outside of the area of potential effect (APE). The boundaries of the APE were determined in consultation with the Pennsylvania SHPO. Therefore, the Hopewell Furnace National Historic Site would not be affected by the selected project.

The FAA has concluded that the selected project would not result in a constructive use of the Hopewell Furnace National Historic Site because the noise exposure levels would be well below the Part 150 compatibility guidelines and the site is located outside of the APE.

Upper Delaware Scenic and Recreational River. The Upper Delaware Scenic and Recreational River's Final River Management Plan (MP) does not discuss noise levels or aircraft overflight. Hunting is permitted on much of the publicly owned land along the Upper Delaware. Additionally, motorboats are allowed on the River. According to the MP residential use, agricultural use and hunting and fishing cabins are considered compatible for all of the river segments. Finally, one of the planning goals of the MP is to "Provide for the continued public use and enjoyment of a full range of recreational activities, as is compatible with the other goals." A quiet setting is not a generally recognized feature or attribute of this site's significance, rather this site appears to be devoted to traditional recreational activities, and pursuant to Order 1050.1E, the Part 150 guidelines should be used to evaluate whether there is a constructive use. The noise exposure levels resulting from the selected project at all the points within the site are 35.0 DNL or less – far below Part 150 compatibility guidelines. Therefore, the change in noise resulting from the selected project would not be a constructive use of Upper Delaware Scenic and Recreational River.

Delaware and Lehigh Canal National Heritage Corridor. The Delaware and Lehigh Canal National Heritage Corridor is more than 150 miles in length and encompasses approximately 100 municipalities. The Management Action Plan for the Delaware and Lehigh Canal National Heritage Corridor and State Heritage Park establishes a framework for stewardship in order to preserve significant historic sites, conserve the natural and cultural environments, as well as provide opportunities for capitalizing on heritage development. The Corridor follows the historic routes of the Lehigh and Susquehanna Railroad, the Lehigh Navigation System, and the Delaware Canal. According to the Management Action Plan, 'The Corridor dramatically illustrates both the first steps and the milestones in the social development of young America, the anthracite coal mining era, the Industrial Revolution, the development of systematic canal and rail transportation, and the evolution of natural conservation." Recreational activities include driving tours, tourism, bicycling, canal boat rides, canoeing, white water rafting, fishing, hiking, hunting, snowmobiling and cross country skiing. The Management Action Plan states, "In addition to the value of the natural resources and open lands of the Corridor for environmental health and habitat for plant and animal species, these resources have superlative recreation value. Natural and recreational resources cover large areas of the Corridor, and accommodate high user demand. At the center of the most densely populated area of the United States, the Corridor provides expansive open spaces and unique recreational to millions of people – opportunities that are nationally significant. The Management Action Plan also discusses promoting appropriate economic development, "A given in promoting tourism and economic development in the Corridor is the concept of 'synergy": when the Corridor's substantial recreational resources are better developed and more, accessible, when its fascinating history and cultural traditions are more visible through improved interpretation, and when the physical and intellectual linkages among its attractions are better developed, the greater potential for sustained economic growth and regeneration. Thus, tourism and economic development become integral inseparable pieces of the whole of the Corridor effort." Given that many of the recreational activities are not conducive to quiet, that the Management Action Plan includes promoting tourism and economic development, and that much of the historic context is linked to industrial development it appears that a quiet setting is not a generally recognized feature or attribute of this park's significance. Therefore, pursuant to Order 1050.1E, the Part 150 guidelines should be used to evaluate whether there is a constructive use. The range of noise exposure levels resulting from the selected project at the locations shown on Figures 5.24, 5.25, and 5.26 is 25.3 DNL to 57.3 DNL. This range of noise exposure levels is below Part 150 compatibility guidelines and nearly the same of the ranges of noise exposure levels resulting from the 2006 No Action Airspace Alternative and the 2011 Future No Action Airspace Alternative..

Additionally, since the Delaware and Lehigh Canal National Heritage Corridor is a historic property, the finding under Section 106 may be used to determine whether there would be a constructive use. The Delaware and Lehigh Canal National Heritage Corridor is outside of the area of potential effect (APE). The boundaries of the APE were determined in consultation with the Pennsylvania and New Jersey SHPOs. Therefore, the Delaware and Lehigh Canal National Heritage Corridor would not be affected by the selected project.

The FAA has concluded that the selected project would not result in a constructive use of the Delaware and Lehigh Canal National Heritage Corridor because the noise exposure levels would be below the Part 150 compatibility guidelines and the Corridor is outside the APE.

Lands for which a quiet setting is an attribute of the land.

With respect to the remaining Section 4(f) sites for which a quiet setting is an attribute of the land, a review of the data showed that with the selected project, the aircraft noise exposure levels at the points evaluated would remain within a range of 44.0 DNL at the highest to 15.5 DNL at the lowest. This range in noise level is low to extremely low. A few illustrations are of value to provide context regarding levels of noise. For example, FHWA has determined that a constructive use would not occur for "Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose." when the project noise does not exceed 57Leq(h).[1] This can be conservatively equated to 43.2 DNL,[2] In other

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[1] 23 CFR §771.135and Table 1 of 23 C.F.R. §772.

[2] The criteria are based on the 1-hour Leq (Leq(h)) metric for peak hour traffic. The DNL metric is a 24-hour cumulative noise metric with an added 10 dB penalty for events that occur during nighttime hours. Translating the 1-hr Leq threshold to a 24-hour Leq can be done conservatively (finding the lowest 24-hr threshold level) by assuming that the threshold value (Leq(h) 57 dB) would occur of only one hour during the day and then no noise for the remaining 23 hours of the day. This would result in a 24 hour Leq of 43.2dB. The comparison of DNL values to 24-hour Leq

(Continued on following page)

words, any location that has an aircraft DNL value of 43.2 DNL or less could not possibly have a peak hour Leq(h) level of greater than 57 dB.

For an additional point of context, FAA sound insulation guidelines are based on the goal of reducing the interior noise level to 45 DNL for residences. Lastly, the EPA Levels Document reported that an annual outdoor noise exposure level of 55 DNL (with a 5 DNL margin of safety) is sufficient to protect public health and welfare from the effects of environmental noise.

Table B.2 compares the medians and ranges of noise exposure levels for the remaining 4(f) sites as a result of the 2006 No Action and 2011 Future No Action Airspace Alternatives as well as the selected project in 2011.[3]

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values generally represents a conservative comparison since DNL levels are typically higher than Leq values would be for the same amount of noise.

[3] When the FAA began the formal NEPA process, the year 2000 was established as the baseline condition for noise modeling. The FAA then estimated the noise levels for 2006 and 2011 utilizing a well recognized and validated noise model called NIRS. For additional information on noise modeling and NIRS see FEIS 3.5 and Appendix E.

Table B.2

Noise Exposure Level Ranges and Medians at Selected 4(f) Sites

4(f) Site	**2006 No Action Airspace Alternative**		**2011 Future No Action Airspace Alternative**		**2011 Selected Project**	
	Range (DNL)	**Medium (DNL)**	**Range (DNL)**	**Medium (DNL)**	**Range (DNL)**	**Medium (DNL)**
Appalachian Trail – Panel 2	21.9 to 37.9	31.3	21.5 to 38.2	31.1	22.6 to 39 2	32.2
Appalachian Trail – Panel 3	17.7 to 43.1	32.5	16.0 to 43.2	33.5	15.5 to 43.9	34.4
Catskill Park – Slide Mountain Wilderness	20.6 to 34.4	28.8	19.4 to 35.7	28.5	27.5 to 37.3	33.4
Catskill Park – Big Indian Wilderness	20.0 to 35 0	30.0	15.9 to 37.1	32.2	20.8 to 37.2	33.2
Catskill Park – Westkill Mountain Wilderness	21.7 to 27.3	24.1	17.7 to 25.6	22.1	26.3 to 36.1	30.2
Delaware Water Gap National Recreation Area – North	19.5 to 31 7	23.3	16.0 to 25.6	20.1	16.4 to 38.6	24.6
Wallkill River National Wildlife Refuge	31.1 to 36.4	34.0	33.6 to 38.2	36.6	38.7 to 44.0	42.1
Weir Farm National Historic Site	34.4 to 34.4	34.4	30.9 to 31.0	31.0	36.4 to 36.5	36.4

Source: Landrum & Brown/Metron Aviation Inc./HNTB Analysis, 2007.

Appalachian Trail. The ranges of DNL noise exposure levels along the Appalachian Trail are nearly the same for the 2006 No Action Airspace Alternative, the 2011 Future No Action Airspace Alternative and the selected project in 2011. Therefore, the noise environment along the Appalachian Trail does not appear to change as a result of the selected project.

DNL noise values provide a measure of the predicted sound levels from aircraft; operations within the scope of the airspace redesign and are independent of the existing ambient, which includes natural and man-made sound sources other than aircraft. Since the more northerly areas of the Appalachian Trail affected by this airspace redesign are likely to experience a mixture of visitor-related and other man-made sounds from nearby communities, the relationship of these existing ambient sound levels to DNL noise exposure levels was also considered.

The 24-hour L_{Aeq} and L_{50} sound levels were used to represent the existing ambient in assessing potential impacts that may result from the airspace redesign. The 24-hour L_{Aeq} is the equivalent average sound level over a 24-hour period. The L_{50} is the sound level exceeded 50 percent of the time, i.e. the median sound level. Because L_{Aeq} is an energy-based metric computed logarithmically (as is DNL), L_{Aeq} values are higher than L_{50} values because their calculation tends to be influenced by higher individual noise levels, whereas the L_{50} simply reports the statistical median.

Ambient sound levels were not available for all sections of the Appalachian Trail, however, ambient sound levels were available for the Great Smoky Mountains National Park, which the Appalachian Trail also traverses.[4] Tables B.3 and B.4 show the winter and summer ambient sound levels measured at primarily backcountry locations in Great Smoky Mountains National Park. The first two columns present the 24-hour L_{Aeq} and L_{50} sound levels for the existing ambient, i.e., it includes all sound sources, over an entire 24-hour day. Non-natural sound sources predominantly consisted of visitor and distant road noise according to notes documented by field observers during the measurements. The third column is the estimated daytime *natural* ambient sound level, a statistical median (L_{50}) of all natural sounds, excluding man-made sounds. The FAA considers existing ambient rather than natural ambient for the purposes of NEPA evaluation because the existing ambient more closely represents the existing noise environment.

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[4] Many parks, particularly those within similar ecosystems have similar physical, biological and meteorological parameters – including land cover, wildlife activity, visitor-use, wind and seasonality. Therefore, it would be expected that their baseline ambient sound levels would also be similar, thus, allowing for the potential transferability of baseline ambient data within large, homogeneous regions of a particular park and possibly between similar regions in other parks. Preliminary analysis comparing ambient data collected at similar sites (i.e., same land cover classes) within Acadia National Park, Glacier National Park, and Great Smoky Mountains National Park show there is some statistical evidence to support the transferability of the ambient data hypothesis. Specifically, data similarities were seen for the deciduous and evergreen forest classifications.

Comparisons were made between aircraft-based DNL values and the 24-hour L_{Aeq} ambient levels. Using the DNL values is more conservative than computing a 24-hour L_{Aeq} noise exposure for aircraft activity for these comparisons. This is the case because DNL accounts for sound intrusions occurring during the nighttime, by penalizing related events by 10 dB. When L_{Aeq}-based ambient sound levels are compared to aircraft-based DNL values for the selected project, one can readily see that future aircraft noise levels are not expected to exceed existing ambient sound levels in a comparable noise environment.

Table B.3

Baseline Ambient Sound Levels in Great Smoky Mountains National Park – Winter Data

Acoustic Zone	Land Cover	Site Name	Elevation (ft)	# Days Data	24-Hour Overall Sound Levels		Estimated Daytime Natural Ambient
					L_{aeq} (dBA)	L_{50} (dBA)	L_{50} (dBA)
Spruce/ Evergreen	Evergreen Forest	Mt. Collins	5971	31	42.6	33.0	33.2
Pine-Oak	Mixed Forest	Parson Branch	2236	27	44.4	30.1	26.0
Cove Hardwood	Deciduous Forest	Porters Flat	2357	26	45.2	32.8	33.0
Northern Hardwood	Deciduous Forest	Purchase Knob	4888	26	44.0	29.1	30.8
Cove Hardwood	Deciduous Forest	Bull Head Trail	2687	29	43.8	28.7	29.6
Open Field Grass/ Pasture	Grasslands/ Herbaceous	Cades Cove	1873	32	42.1	33.5	35.0
Northern Hardwood	Deciduous Forest	Noland Divide	5575	28	46.1	35.6	31.5
Median of all sites					44.0	32.8	31.5

Source: John A. Volpe National Transportation Systems Center, 2007 (draft report)

Table B.4

Baseline Ambient Sound Levels in Great Smoky Mountains National Park – Summer Data

Acoustic Zone	Land Cover	Site Name	Elevation (ft)	# Days Data	24-Hour Overall Sound Levels		Estimated Daytime Natural Ambient
					L_{Aeq} (dBA)	L_{50} (dBA)	L_{50} (dBA)
Spruce/ Evergreen	Evergreen Forest	Mt. Collins	5971	29	46.4	29.1	28.0
Pine-Oak	Mixed Forest	Parson Branch	2236	28	51.3	29.1	28.1
Cove Hardwood	Deciduous Forest	Porters Flat	2357	26	50.5	35.9	35.2
Northern Hardwood	Deciduous Forest	Purchase Knob	4888	26	47.8	29.4	30.0
Cove Hardwood	Deciduous Forest	Bull Head Trail	2687	26	49.1	31.6	32.2
Open Field Grass/ Pasture	Grasslands/ Herbaceous	Cades Cove	1873	25	57.1	47.3	26.6
Northern Hardwood	Deciduous Forest	Noland Divide	5575	22	43.9	28.5	27.1
Median of all sites					49.1	29.4	28.1

Source: John A. Volpe National Transportation Systems Center, 2007 (draft report)

In addition to considering the range and median noise exposure levels for the property and comparing the DNL to a reasonable estimate of the ambient noise at the property, the FAA also looked at uses of the Appalachian Trail that involve a quiet setting to determine whether the selected project resulted in a constructive use of the property. In the Study Area, there are approximately 25 three-sided shelters along the Appalachian Trail that protect hikers from the elements and are also used for overnight camping. (See Figures B.1, B,2, B.3 and B.4). Modeled 2006 and 2011 noise levels for the No Action and Future No Action Airspace Alternatives, and the selected project at the shelter locations are presented in Table B.5.

Table B.5

Noise Exposure Levels at the Appalachian National Scenic Trail Shelters

Shelter	2006 No Action Airspace Alternative (DNL)	2011 Future No Action Airspace Alternative (DNL)	2011 Selected Project (DNL)
S1	29.0	29.3	26.9
S2	32.7	31.9	30.6
S3	30.1	29.7	29.7
S4	29.1	30.7	31.2
S5	29.5	30.9	32.6
S6	28.5	28.7	27.2
S7	29.2	29.3	27.7
S8	28.6	28.5	27.3
S9	34.6	36.1	35.2
S10	27.9	25.6	34.3
S11	34.8	34.6	36.1
S12	26.2	25.2	31.5
S13	29.5	29.6	30.4
S14	29.3	28.0	28.3
S15	25.8	19.3	17.9
S16	28.7	22.7	25.1
S17	31.4	31.2	35.6
S18	31.3	31.4	37.3
S19	34.8	36.1	42.6
S20	36.4	37.7	42.6
S21	40.6	40.8	38.4
S22	35.5	35.5	32.7
S23	38.7	38.4	32.4
S24	39.2	39.3	28.9
S25	40.7	40.7	21.8

Source: Landrum & Brown/Metron Aviation Inc./IINTB Analysis, 2007.

As can be seen from the table, the highest noise level at a shelter location in 2006 for the No Action and 2011 Future No Action Airspace Alternatives would be 40.7 DNL and 40.8 DNL respectively. The highest noise level at a shelter location in 2011 with the selected project would be 42.6 DNL. The difference between the No Action Airspace Alternatives and the selected project noise exposure levels would be de minimis; 1.9 and 1.8 DNL. From this data, it is apparent that activities involving a quiet setting would not be compromised by the selected project because locations along the Appalachian Trail used in the same manner would have comparable sound exposure levels.

The FAA has concluded that the selected project would not result in a constructive use of the Appalachian Trail because the noise environment would not be substantially changed by the selected project. This conclusion is further supported by the fact that comparable ambient noise levels are expected to be higher than future aircraft noise levels, and that the noise levels at areas with activities involving a quiet setting are comparable with and without the selected project.

Catskill Park. The Catskill Park including the Catskill Forest Preserve contains land with a wide variety of uses; " . . . from somewhat remote trail – less mountain peaks and picturesque streams to intensively used camping areas and trails". The Catskill Park State Land Master Plan provides guidelines for uniform protection and management of the Catskill Park based on land classifications. Four basic classifications are used: Wilderness, Wild Forest, Intensive Use and Administrative. The FAA reviewed the characteristics of each of these land classifications and concluded that Part 150 guidelines would be applicable to determine the significance of noise impacts to the Catskill Park with the exception of those areas designated as Wilderness areas. Four Wilderness Areas are within the bounds of the Study Area: Slide Mountain Wilderness, Big Indian Wilderness, Indian Head Wilderness and the Westkill Mountain Wilderness Areas. With the selected project, only the Slide Mountain Wilderness, Big Indian Wilderness, and the Westkill Mountain Wilderness Areas would be exposed to noise levels more than 3.0 DNL higher than the 2011 Future No Action Airspace Alternative. The range of noise exposure levels for the three areas combined would be 15.9 DNL to 37.1 DNL with the 2011 Future No Action Airspace Alternative and 20.8 DNL to 37.3 DNL with the selected project. The ranges of noise exposure levels in the Wilderness Areas are nearly the same for both the Future No Action Airspace Alternative and the selected project in 2011. Therefore, it does not appear that the selected project would change the noise environment in the Wilderness Areas and it is concluded that there would not be a constructive use of the Slide Mountain Wilderness, Big Indian Wilderness, or the Westkill Mountain Wilderness Areas.

Delaware Water Gap National Recreation Area. The general management plan (GMP) for the Delaware

Water Gap National Recreation Area (NRA) does not identify quiet or serene aspects. According to the NPS Designation of National Park System Units, "Twelve NRAs in the system are centered on large reservoirs and emphasize water-based recreation. Five other NRAs are located near major population centers. Such urban parks combine scarce open spaces with the preservation of significant historic resources and important natural areas in locations that can provide outdoor recreation for large numbers of people. Motorboat use is allowed on the Delaware River, snowmobile use is permitted on one trail and hunting is permitted in most parts of the recreation area. The GMP discussed three types of camping: developed, group, and primitive backcountry. According to the GMP primitive backcountry camping was to be managed by a permit system. Primitive backcountry camping is characterized as that without comfort facilities. According to the Delaware Water Gap Official Map and Guide, "Primitive campsites are available for through-hikers on the Appalachian Trail and canoeists on extended river trips."

With the exception of the Appalachian Trail (previously evaluated) it is unclear as to whether this site should be considered to have a setting where noise is very low because hunting is permitted throughout the NRA and motor boating is permitted on the Delaware River. However, due to the proximity of the Appalachian Trail, the FAA decided not to rely on the Part 150 guidance to determine whether there would be a constructive use. Noise exposure levels were calculated at multiple points within the Delaware Water Gap NRA. For the purposes of illustrating and discussing the results of the noise analysis, the Recreation Area was divided into two sections; South and North (See Figures 5.28 and 5.29). Noise exposure levels (DNL) for the 2011 Future No Action Alternative and the selected project were compared. For all points located in the southern section the noise level would be lower with the selected project than with the 2011 Future No Action Alternative. For some points in the northern section the difference in noise exposure levels resulting from the selected project as compared to the Future No Action Airspace Alternative would exceed 3 DNL. The ranges of 2006 No Action Airspace alternative noise levels are from 19.5 DNL to 31.7 DNL, and from 17.7 DNL to 36.4 DNL for the northern and southern sections respectively. The range of noise levels resulting from the selected project would be from 16.4 DNL to 38.6 DNL and from 15.5 DNL to 31.5 DNL for the northern and southern sections respectively. Since the reason for dividing the Delaware Water Gap NRA into two sections was for the purposes of presenting the results of the analysis and not based on use, it is appropriate to compare the ranges of values for the entire site. The difference between the highest noise exposure levels resulting from the 2006 No Action Airspace Alternative and the selected project would be only 2.2 DNL. Therefore, it does not appear that the selected project would substantially change the noise environment within the Delaware Water Gap NRA.

The relationship of existing ambient sound levels to the DNL noise exposure levels was also considered. Since the Appalachian Trail passes thru the Delaware Water Gap NRA, the same existing ambient values were used for comparison purposes. As a result of the selected project, the highest noise exposure level at the points analyzed in the Delaware Water Gap NRA would be 38.6 DNL. This would be well below a reasonable estimation of the existing ambient 24 hour L_{Aeq} values during both the winter and summer regardless of the acoustic zone.

The FAA has concluded that the selected project would not result in a constructive use of the Delaware Water Gap NRA because the noise environment would not be substantially changed by the selected project and ambient noise levels are expected to be higher than future aircraft noise levels with the selected project.

Wallkill River National Wildlife Refuge (NWR). The ranges of noise exposure levels at the Wallkill River NWR would be 33.6 DNL to 38.2 DNL and 38.7 DNL and 44.0 DNL as a result of the 2011 Future No Action Airspace Alternative and the 2011selected project respectively. Although the noise exposure levels at the Wallkill River NWR would be higher with the selected project, they remain below the 2006 No Action Airspace Alternative noise exposure levels at the nearby, similarly used Shawangunk Grasslands NWR. These two NWRs are within the same ecosystem and have similar public use activities such as wildlife observation and fishing. The 2006 No

Action Airspace Alternative noise exposure levels for the Shawangunk Grasslands NWR range from 43.4 DNL and 44.6 DNL. Therefore, it is concluded that the selected project would not result in a constructive use as it relates to visitor experience of the Wallkill River NWR.

Although public use including hunting is permitted at the Wallkill River NWR, one of the primary goals in the Draft Comprehensive Conservation Plan and Draft EA for the Wallkill River NWR is to protect and enhance populations of threatened and endangered species. Therefore, the FAA considered the potential for noise increases resulting from the selected Project to impact the threatened and endangered species with habitat in the Wallkill River NWR. According to the NJ Wildlife Action Plan (2-16-07) habitat in this area supports five federally threatened and endangered wildlife species; the Indiana bat, bog turtle, dwarf wedgemussels, Mitchell's satyr (extirpated), and American burying beetle (extirpated). Studies on the effects of noise on wildlife have been conducted predominantly on mammals and birds. Studies of subsonic aircraft disturbances on ungulates (e.g. Pronghorn, bighorn sheep, elk, and mule deer), in both laboratory and field conditions, have shown that effects are transient and of short duration and suggest that the animals habituate to the sounds.[5]

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[5] Sonic Boom/Animal Disturbance Studies on Pronghorn Antelope, Rocky Mountain Elk and Bighorn Sheep, G.W.

(Continued on following page)

Similarly, impacts to raptors and other birds (e.g. waterfowl) from low-level aircraft were found to be brief and insignificant and not detrimental to reproductive success.[6] Consequently, the selected Project would not be expected to substantially impair the features or attributes of the Wallkill River NWR related to threatened and endangered species and the FAA concludes that the selected Project would not result in a constructive use of this 4(f) site.

Workman, T.D. Bunch, J.W. Call., R.C. Evans, L.S. Neilson, and E.M. Rawlings, Prepared for USAF, 1992

The effects of low-altitude jet aircraft on desert ungulates, P.R. Krausman, M.C. Wallace, D.W. DeYoung, M.E. Weisenberger, and C.L. Hayes, International Congress: Noise as a Public Health Problem 6:471-478, 1993.

Effects of Simulated Jet Aircraft Noise on Heart Rate and Behavior of Desert Ungulates, M.E.Weisenberger, P.R. Krausman, M.C. Wallace, D.W. DeYoung, and O.E. Maughan, Journal of Wildlife Management 60:52-61, 1996.

[6] Raptors and aircraft., D.G. Smith, D.H. Ellis, and T.H. Johnson, Proceedings of the Southwest Raptor Management Symposium and Workshop, National Wildlife Federation, pages 360-367 in R.L. Glinski, B.G. Pendleton, M.B. Moss, M.N. LeFranc, Jr., B.A. Millsam, and S.W. Hoffman, eds. 1988

Monitoring the Effect of Military Air Operations at Naval Air Station Fallon on the Biota of Nevada, R.E. Lamp, Nevada Department of Wildlife, 1989.

Raptor Responses to Low-Level Military Jets and Sonic Booms.. D.H. Ellis, C.H. Ellis, and D.P. Mindell, Environmental Pollution 74:53-83, 1991.

Variation in Breeding Bald Eagle Responses to Jets, Light Planes and Helicopters, T.G. Grubb and W.W. Bowerman, Journal of Raptor Research 31:213-222.

Weir Farm National Historic Site (NHS). The FAA conducted further evaluation of the Weir Farm NHS to determine whether a quiet setting is a generally recognized feature or attribute of the site's significance. A wide range of types of visitor use is identified on the NPS website and in the Weir Farm National Historic Site General Management Plan/Environmental Impact Statement; everything from offering daily visitor landscape and audio tours to providing quiet, uncrowded space for artists. Although it appears that activities already conducted at the site are not conducive to a quiet setting, the FAA decided not to rely on the Part 150 guidance to determine constructive use because the management plan noted the need for artists to have quiet.

The range of noise exposure levels at the Weir Farm NHS would be from 36.4 DNL to 36.5 DNL as a result of the 2011 selected project. When compared to the 2006 No Action Airspace noise exposure level of 34.4 DNL, it does not appear that the selected project would substantially change the noise environment within the Weir Farm NHS.

Additionally, since the Weir Farm NHS is a historic property, the finding under Section 106 may be used to determine whether there would be a constructive use. The Weir Farm NHS is outside of the area of potential effect (APE). The boundaries of the APE were determined in consultation with the Connecticut SHPO. Therefore, the Weir Farm NHS would not be affected by the selected project.

The FAA has concluded that the selected project would not result in a constructive use of the Weir Farm NHS because the selected project would not change the noise environment and the site is not affected as it pertains to Section 106.

Additional Visual Evaluation

Visual impacts would result in a constructive use of a 4(f) site only if the activities, features, or attributes of the site that contribute to its significance or enjoyment are substantially diminished. Normally, visual impacts are a result of construction, development, or demolition. The selected project does not include any of these actions. FHWA regulations defining constructive use include examples of when the proximity of a proposed project to a 4(f) site would substantially diminish aesthetic features or attributes that contribute to the value of a Section 4(f) property. "Examples . . . would be the location of a proposed transportation facility in such proximity that it obstructs or eliminates the primary views of an architecturally significant historic building, or substantially detracts from the setting of a park or historic site which derives its value in substantial part due to its setting."

The Proposed Action is limited to changing the aircraft routes. Unlike some other areas of the US, the North Eastern Corridor is heavily populated and is a hub for domestic and international air traffic. The Study Area is already heavily traversed by commercial aircraft. Given the proximity of existing flight tracks to all 4(f) resources in the Study Area, it is unlikely that changes in the location of such tracks would substantially obstruct the primary vista or detract from the setting of 4(f) resources that derive their value in substantial part due to their settings and vistas. However, based on consultation with the NPS, the FAA provided additional information regarding potential airspace changes in the vicinity of outstanding vistas located within the National Parks, National Wildlife Refuges and the Catskill Park Wilderness Areas.

As requested by the NPS, the FAA reviewed the management plans for the parks to determine the locations of important and/or outstanding vistas. It is noted that many management plans referred to scenic qualities in a generalized manner but did not include the locations of specific outstanding vistas. Visual impacts were primarily considered only for the specifically identified vistas. Thus visual impacts were considered for scenic vistas identified in the following parks: the Appalachian Trail, the Delaware Water Gap National Recreation Area, the Ellis Island National Monument, the Gateway National Recreation Area, the Home of Franklin D. Roosevelt National Historic Site, the Morristown National Historical Park, the Statue of Liberty National Monument, the

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206e. The responsible FAA official will give particular attention to its responsibilities under section 4(f) of the DOT Act to insure that a special effort is made to preserve the natural beauty of countryside, public parks, and recreation lands, wildlife and waterfowl refuges, wild and scenic rivers or study rivers, and historic sites. FAA will not approve actions requiring the use of properties under section 4(f) of the DOT Act unless there is no feasible and prudent alternative to the use and the program includes all possible planning to minimize harm from the use.

206d. The responsible FAA official also will give particular attention to actions involving properties included in or eligible for inclusion in the National Register of Historic Places and the provisions of Title VI of the Civil Rights Act of 1964 and the Uniform Relocation Assistance and Real Properties Acquisition Policies Act of 1970.

207. ROLE OF LEAD AND COOPERATING AGENCIES. Section 1501.5 of the CEQ regulations describes the role of the lead agency in preparing EIS's when more than one agency is involved in a proposed action. Section 1501.6 describes the relationship of the lead agency with cooperating agencies. Sections 1501.7 and 1501.8 describe the role of the lead agency in the scoping process and in setting time limits.

207a. Lead agencies may ask Federal agencies with special expertise or jurisdiction by law to be cooperating agencies.

207b. The definition of a cooperating agency in 40 CFR 1508.5 also includes any "State or local agency of similar qualifications [i.e., with jurisdiction by law or special expertise with respect to any environmental impact involved in a proposal] or, when the effects are on a reservation, a Tribe, may by agreement with the lead agency become a cooperating agency." For further guidance, see CEQ Memorandum on Designation of Non-Federal Agencies to be Cooperating Agencies in Implementing the Procedural Requirements of the National Environmental Policy Act (July 28, 1999) and the CEQ Memorandum for Heads of Federal Agencies: Cooperating Agencies in Implementing the Procedural Requirements of the National Environmental Policy Act (January 30, 2002).

208. PUBLIC INVOLVEMENT

208a. NEPA and the CEQ regulations, in describing the public involvement process, require Federal agencies to: consider environmental information in their decision making process; obtain information from the public regarding environmental concerns surrounding an agency's proposed action; fully assess and disclose potential environmental impacts resulting from the proposed action and alternatives; and provide the public with this information and allow it to comment on these findings. Public involvement is also required when FAA revises its rules, or when it proposes substantial changes to its NEPA implementing instructions. FAA's "Community Involvement Policy Statement" (dated April 17, 1995) affirms FAA's commitment to make complete, open and effective public participation an essential part of its actions, programs, and decisions.

208b. At the earliest appropriate stage of the action and early in the process of preparing NEPA documentation, the responsible FAA official, or when applicable, the project proponent, must provide pertinent information to the affected community and agencies and consider the affected communities' opinions (40 CFR 1501.2). The extent of early coordination will depend on the complexity, sensitivity, degree of Federal involvement, and anticipated environmental impacts of the proposed action. Comments received during early coordination on environmental impacts of proposed actions shall be considered, as appropriate, in determining whether an EA or EIS is required.

208c. Public input is important in defining the scope of FAA NEPA documents. Public involvement is required when the FAA prepares an EIS (40 CFR 1501.4(d)). Public involvement must be provided for, to the extent practicable, while an EA is being drafted (40 CFR 1501.4(b)). Although there is no standard approach to public scoping, it is important that FAA facilitate public participation in that process as well.

Therefore, the FAA should tailor public scoping processes to match the complexity of the proposal.

208d. FAA must provide the public with an opportunity to review and comment on draft EIS's and must formally respond to those public comments in final EIS's (40 CFR 1506.6 and 1503.4). Although the FAA need not formally respond to public comments concerning BA's, BA's should reflect the FAA's consideration of public concerns. Further information about public involvement during the EA or EIS process is contained in chapters 4 and 5, respectively.

208e. NEPA also serves as "a framework" statute for completing the public notice and participation requirements specified in many other applicable environmental laws and regulations, e.g., section 106 of the National Historic Preservation Act, Executive Order 12898 and Order DOT 5610.2, addressing environmental justice. Responsible FAA officials and project proponents must involve, and are encouraged to work cooperatively with, other agencies during the NEPA process and meet the public involvement needs specified in all the environmental laws, regulations and executive orders applicable to a proposed FAA action.

208f. When another Federal agency disposing of land is the lead agency pursuant to NEPA, the FAA shall defer to the public involvement requirements of the agency having jurisdiction over those lands. For example, when FAA actions involve the transfer of military installations, FAA should work with DOD to satisfy DOD public involvement needs and incorporate NEPA with the requirements of the Base Closure and Realignment Acts.

208g. The FAA must prepare draft EIS's for rulemaking activities that could cause significant environmental impacts. As needed, the responsible FAA official should consult with the Office of Rulemaking (ARM) and the Office of the Chief Counsel (AGC) to coordinate public involvement in these instances.

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SECTION 6. DEPARTMENT OF TRANSPORTATION ACT, SECTION 4(f)

Statute	Regulation	Oversight Agency
Department of Transportation Act of 1966, section 4(f) [recodified at 49 U.S.C. 303 (c)]		Department of Transportation

6.1 REQUIREMENTS.

6.1a. The Federal statute that governs impacts in this category is commonly known as the Department of Transportation (DOT) Act, section 4(f) provisions. Section 4(f) of the DOT Act, which is codified and renumbered as section 303(c) of 49 U.S.C., provides that the Secretary of Transportation will not approve any program or project that requires the use of any publicly owned land from a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance or land from an historic site of national, State, or local significance as determined by the officials having jurisdiction thereof, unless there is no feasible and prudent alternative to the use of such land and such program, and the project includes all possible planning to minimize harm resulting from the use. This order continues to refer to section 4(f) because it would create needless confusion to do otherwise; the policies section 4(f) engendered are widely referred to as "section 4(f)" matters.

6.1b. Procedural requirements are set forth in Order DOT 5610.1C, Attachment 2, paragraph 4. The FAA also uses as guidance to the extent relevant the Federal Highway Administration and Urban Mass Transportation Administration's guidance defining *Constructive Use* under 23 CFR 771.135 (56 FR 13269, April 1, 1991).

6.1c. Designation of airspace for military flight operations is exempt from section 4(f). The Department of Defense reauthorization in 1997 provided that "[n]o military flight operations (including a military training flight), or designation of airspace for such an operation, may be treated as a transportation program or project for purposes of section 303(c) of title 49, United States Code" (PL 105-85, Nov. 18, 1997).

6.1d. *Permits/Certificates*: Not Applicable.

6.2 FAA RESPONSIBILITIES.

6.2a. Any part of a publicly owned park, recreation area, refuge, or historic site is presumed to be significant unless there is a statement of insignificance relative to the whole park by the Federal, State, or local official having jurisdiction thereof. Any such statement of insignificance is subject to review by the FAA.

6.2b. Where Federal lands are administered for multiple uses, the Federal official having jurisdiction over the lands shall determine whether the subject lands are in fact being used for park, recreation, wildlife, waterfowl, or historic purposes. National wilderness areas may serve similar purposes and shall be considered subject to section 4(f) unless the controlling agency specifically determines that for section 4(f) purposes the lands are not being used.

6.2c. Where property is owned by and currently designated for use by a transportation agency and a park or recreation use of the land is being made only on an interim basis, a section 4(f) determination would not ordinarily be required. The FAA official or sponsor should indicate in any lease or agreement involving such use that this use is temporary.

6.2d. Where the use of a property is changed by a State or local agency from a section 4(f) type use to a transportation use in anticipation of a request for FAA approval, section 4(f) shall be considered to apply, even though the change in use may have taken place prior to the request for approval or prior to any FAA action on the matter. This is especially true where the change in use appears to have been undertaken in an effort to avoid the application of section 4(f).

6.2e. For section 4(f) properties, the initial assessment will determine whether the requirements of section 4(f) are applicable. When there is an actual physical taking of lands being used for park or other purposes in conjunction with a project, there is generally no latitude for judgment regarding 4(f) applicability. Use within the meaning of section 4(f) includes not only actual physical takings of such lands but also adverse indirect impacts (constructive use) as well. When there is no physical taking, but there is the possibility of constructive use, the FAA must determine if the impacts would substantially impair the 4(f) resource. If there would be no substantial impairment, the action would not constitute a constructive use and would not therefore invoke section 4(f) of the DOT Act. The responsible FAA official must consult all appropriate Federal, State, and local officials having jurisdiction over the affected section 4(f) resources when determining whether project-related noise impacts would substantially impair the resources. Following consultation, FAA is ultimately solely responsible for section 4(f) applicability and determinations.

6.2f. Substantial impairment occurs only when the activities, features, or attributes of the resource that contribute to its significance or enjoyment are substantially diminished. A project which respects a park's territorial integrity may still, by means of noise, air pollution, or otherwise, dissipate its aesthetic value, harm its wildlife, defoliate its vegetation, and take it in every practical sense. For section 4(f) purposes, the impairment must be substantial. With respect to aircraft noise, for example, the noise must be at levels high enough to have negative consequences of a substantial nature that amount to a taking of a park or portion of a park for transportation purposes.

6.2g. The land use compatibility guidelines in 14 CFR Part 150 (Part 150) may be relied upon to determine whether there is a constructive use under section 4(f) where the land uses specified in the Part 150 guidelines are relevant to the value, significance, and enjoyment of the 4(f) lands in question. Part 150 guidelines may be relied upon in evaluating constructive use of lands devoted to traditional recreational activities. FAA may primarily rely upon the average day night sound levels (DNL) in Part 150 rather than single event noise analysis because DNL is the best measure of significant impact on the quality of the human environment, is the only noise metric with a substantial body of scientific data on the reaction of people to noise, and has been systematically related to Federal compatible land use guidelines.

6.2h. Turning to historic sites, FAA may also rely upon Part 150 guidelines to evaluate impacts on historic properties that are in use as residences. Part 150 guidelines may not be sufficient to determine the noise impact on historic properties where a quiet setting is a generally recognized purpose and attribute, such as a historic village preserved specifically to convey the atmosphere of rural life in an earlier era or a traditional cultural property. If architecture is the relevant characteristics of an historic neighborhood, then project-related noise does not substantially impair the characteristics that led to eligibility for or listing on the National Register of Historic Places. As a result the noise does not constitute a constructive use and section 4(f) would not be triggered. A historic property would not be used for section 4(f) purposes when FAA issues a finding of No historic properties affected or No Adverse Effect under section 106 of the National Historic Preservation Act. Findings of Adverse Effects do not automatically trigger section 4(f) unless the effects substantially impair the affected resource's historical integrity. Although there may be some physical taking of land, Section 4(f) does not apply to archeological resources where the responsible FAA official, after consultation with the SHPO/THPO determines that the archeological resource is important chiefly for data recovery, and is not important for preservation in place. FAA is responsible for complying with section 106 of the National Historic Preservation Act (NHPA) (see section 11 of this appendix) regardless of the disposition of section 4(f).

6.2i. When assessing use of section 4(f) properties located in a quiet setting and the setting is a generally recognized feature or attribute of the site's significance, carefully evaluate reliance on part 150 guidelines. Additional factors must be weighed in determining whether to apply the thresholds listed in Part 150 guidelines to determine the significance of noise impacts on noise sensitive areas within national parks, national wildlife refuges, and historic sites including traditional cultural properties. The Part 150 land use compatibility table may be used as a guideline to determine significance of noise impacts on section 4(f) properties to the extent that the land uses specified bear relevance to the value, significance, and enjoyment of the lands in question. For example, part 150 guidelines may not be sufficient for all historic sites (see 6.2h above) and do not adequately address the effects of noise on the expectations and purposes of people visiting areas within a national park or national wildlife refuge where other noise is very low and a quiet setting is a generally recognized purpose and attribute.

6.2j. If FAA determines that section 4(f) is applicable and there are no prudent and feasible alternatives which would avoid such use, the effect on the section 4(f) land shall be described in detail. The description of the land shall include size, activities, patronage, access, unique or irreplaceable qualities, relationship to similarly used lands in the vicinity, or other factors necessary to determine the effects of the action and measures needed to minimize harm. Such measures may include the mitigation of project impacts or the replacement of land and facilities and design measures such as planting or screening to mitigate any adverse effects. Replacement satisfactory to the Secretary of the Interior (DOI) is specifically required for recreation lands aided by the DOI's Land and Water Conservation Fund and for certain other lands falling under the jurisdiction of the DOI. The environmental document shall include evidence of concurrence or efforts to obtain concurrence of appropriate officials having jurisdiction over such land regarding actions proposed to minimize harm.

6.2k. If Federal grant money was used to acquire the land involved (e.g., open space under the Department of Housing and Urban Development (HUD) and various conservation programs under DOI) the environmental document shall include evidence of or reference to appropriate communication with the grantor agency.

6.3 SIGNIFICANT IMPACT THRESHOLDS. A significant impact would occur pursuant to NEPA when a proposed action either involves more than a minimal physical use of a section 4(f) property or is deemed a "constructive use" substantially impairing the 4(f) property, and mitigation measures do not eliminate or reduce the effects of the use below the threshold of significance (e.g., by replacement in kind of a neighborhood park). Substantial impairment would occur when impacts to section 4(f) lands are sufficiently serious that the value of the site in terms of its prior significance and enjoyment are substantially reduced or lost. If there is a physical or constructive use, FAA is responsible for complying with section 4(f) even if the impact is less than significant for NEPA purposes.

6.4 ANALYSIS OF SIGNIFICANT IMPACTS. The FAA shall consult with the officials having jurisdiction over the section 4(f) property(ies), and other agencies, as necessary. The EIS should thoroughly analyze and document prudent and feasible alternatives that would avoid the use of section 4(f) property and provide detailed measures to minimize harm.

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14.4f. Noise monitoring data may be included in an EA or EIS at the discretion of the responsible FAA official. Noise monitoring is not required and should not be used to calibrate the noise model.

14.4g. DNL, contours, grid point, and/or change-of-exposure analysis will be prepared for the following:

(1) Current conditions; and

(2) Future conditions both with and without (no action) the proposal and each reasonable alternative. Comparisons should be done for appropriate timeframes. Timeframes usually selected are the year of anticipated project implementation and 5 to 10 years after implementation. Additional timeframes may be desirable for particular projects.

14.4h. If the above comparisons show a DNL 1.5 dB or greater increase over a noise sensitive area exposed to DNL 65 dB or greater as a result of the proposed project or any of its reasonable alternatives (except no action), a level of significant noise impact has been reached.

14.4i. The following information will be disclosed in the EIS for each modeling scenario that is analyzed:

(1) The number of people living or residences within each noise contour at or above DNL 65 dB, including the net increase or decrease in the number of people or residences exposed to that level of noise. (Use of maps that depict locations within a community of noise sensitive areas is recommended.)

(2) The location and number of noise sensitive uses (e.g., schools, churches, hospitals, parks, recreation areas) exposed to DNL 65 dB or greater.

(3) Mitigation measures in effect or proposed and their relationship to the proposal.

14.4j. When a proposed FAA action would result in a significant noise increase and is highly controversial on this basis, the EIS should include information on the human response to noise that is appropriate for the proposal under analysis. Inclusion of data on background or ambient noise may be helpful.

14.5 SUPPLEMENTAL NOISE ANALYSIS.

14.5a. The Federal Interagency Committee on Noise (FICON) report, "Federal Agency Review of Selected Airport Noise Analysis Issues," dated August 1992, concluded that the Day-Night Average Sound Level (DNL) is the recommended metric and should continue to be used as the primary metric for aircraft noise exposure. However, DNL analysis may optionally be supplemented on a case-by-case basis to characterize specific noise effects. Because of the diversity of situations, the variety of supplemental metrics available, and the limitations of individual supplemental metrics, the FICON report concluded that the use of supplemental metrics to analyze noise should remain at the discretion of individual agencies.

14.5b. Supplemental noise analyses are most often used to describe aircraft noise impacts for specific noise-sensitive locations or situations and to assist in the public's understanding of the noise impact. Accordingly, the description should be tailored to enhance understanding of the pertinent facts surrounding the changes. The FAA's selection of supplemental analyses will depend upon the circumstances of each particular case. In some cases, this may be accomplished with a more complete narrative description of the noise events contributing to the DNL contours with additional tables, charts, maps, or metrics. In other cases, supplemental analyses may include the use of metrics other than DNL. Use of supplemental metrics selected should fit the circumstances. There is no single supplemental methodology that is preferable for all situations and these metrics often do not reflect the magnitude, duration, or frequency of the noise events under study.

14.5c. Supplemental analyses may be accomplished using the various capabilities of INM or NIRS for specific grid point analysis. Noise analyses can be used in combination with geographic information system (GIS) design programs such as AutoCAD and the U.S. Census TIGER databases to determine various population impacts within specified areas.

14.5d. For proposed air traffic or special use airspace actions above 3,000 feet above ground level (AGL), the ATNS or other FAA-approved screening shall be used. The ATNS allows the user to evaluate potential noise impacts resulting from changes in airport arrivals and departures by screening proposed changes to determine whether the change increases the community noise level by 5 decibels or more beneath the aircraft route. Where a proposed change would cause an increase in noise of 5 decibels or greater, FAA considers whether there are extraordinary circumstances that warrant preparation of an environmental assessment.

14.5e. For air traffic airspace actions where the study area is larger than the immediate vicinity of an airport, incorporates more than one airport, or includes actions above 3,000 feet AGL, noise modeling will be conducted using NIRS. For those types of studies, NIRS will be used to determine noise impacts from the ground to 10,000 feet AGL. This noise analysis will focus on the change in noise levels as compared to populations and demographic information at population points throughout the study area. Noise contours will not be prepared for the NIRS analysis. However, NIRS will be used to produce change-of-exposure tables and maps at population centroids using the following criteria:

DNL 60-65 dB	± 3 dB
DNL 45-60 dB	± 5 dB

14.5f. The following metrics have been used in developing supplemental noise analyses for a variety of reasons such as sleep disturbance, speech interference, soundproofing, and analysis for special areas such as national parks:

(1) SEL (sound exposure level) – A single event metric that takes into account both the noise level and duration of the event and referenced to a standard duration of one second.

(2) L_{max} (maximum sound level) – A single event metric that is the highest A-weighted sound level measured during an event.

(3) L_{eq} (equivalent sound level) – A cumulative level of a steady tone that provides an equivalent amount of sound energy for any specific period.

(4) TA (time above) – A time-based metric that gives the duration, in minutes, for which aircraft-related noise exceeded a specified A-weighted sound level during a given period.

(5) SPL (sound pressure level) – One-third octave band sound pressure levels that form the starting point for all other noise metrics. SPL provides a detailed description of the frequency components of a single complex sound and are used in assessing the effectiveness of soundproofing.

(6) Audibility – A time-based metric developed for use in Grand Canyon National Park to evaluate the substantial restoration of natural quiet as mandated by Public Law 100-91.

14.5g. The type and nature of activity potentially impacted should be considered. The FICON report identified sleep disturbance and speech interference as two areas where it is appropriate to consider supplemental metrics. In the case of sleep disturbance, the report referred the reader to a dose-response relationship developed by the US Air Force Armstrong Laboratories. This relationship relates SEL to a percent-awakened number. No provision is made for combining the effects of multiple events. To examine speech interference, FICON recommends using a cumulative A-weighted metric that is limited to the affected time period hours or a Time-above analysis. Additionally, FICON provides a table that relates DNL to speech interference. The guidelines for both sleep interference and communication interference relate the degree of interference to single event indoor noise levels. Refer to FICON for further guidance. In addition, the FAA will consider use or appropriate supplemental noise analysis in consultation with the officials having jurisdiction for national parks, national wildlife refuges, and historic sites including traditional cultural properties where a quiet setting is a generally recognized purpose and attribute that FAA identifies within the study area of a proposed action. Such supplemental noise analysis is not, by itself, a measure of adverse aircraft noise or significant aircraft noise impact. Offices within FAA must consult with and receive approval from AEE in determining the appropriate supplemental noise analysis for use in such cases.

14.6 PROJECTS NOT REQUIRING A NOISE ANALYSIS.

14.6a. No noise analysis is needed for proposals involving Design Group I and II airplanes (wingspan less than 79 feet) in Approach Categories A through D (landing speed less than 166 knots) operating at airports whose forecast operations in the period covered by the EA do not exceed 90,000 annual propeller operations (247 average daily operations) or 700 jet operations (2 average daily operations). These numbers of general aviation (GA) propeller and jet

* * *

The Legislature of Rockland County
[SEAL]

HARRIET D. CORNELL
Chairwoman

Comment by
Hon. Harriet Cornell
Chairwoman, Rockland County Legislature
Airspace Redesign Proposal for New York area

When the F.A.A. announced its "preferred airspace redesign alternative for the New York area," it highlighted issues such as reducing delays and making air travel more reliable. But there was no mention of the millions of people who would not be purchasing airline tickets – people who live and work directly in these flight paths – who would be the most affected and disadvantaged by this "preferred airspace redesign alternative." The FAA Preferred Alternative clearly affects our quality of life.

Rockland has long been considered one of the most attractive places to live in the New York Metropolitan region. We have wonderful schools, state-of-the-art health care and extensive outdoor recreational opportunities. The FAA owes it to the residents of Rockland County to listen to our concerns and revamp accordingly – even if it means going back to the drawing board.

Thanks to an editorial in The Journal News on July 17, 2007, I leaned that the County of Westchester had hired an independent consultant in 2006 to review the FAA plans. In September of 2006 the FAA made a commitment, based upon initial comments on the DEIS submitted by Westchester, to provide the noise data needed in order for the consultant to investigate issues of concern. It took almost eight months for the FAA send the data, which was received two days before the close of the comment period in May 2007. I obtained a copy of the in-depth Report that Westchester County sent to the FAA after they analyzed the late-arriving data on Noise Mitigation. And while it may not be relevant to comment about some of the strictly Westchester-based analysis, I can extrapolate what appears to be a major flaw in the FAA proposal.

What the FAA did *not* do is compare the Mitigated Preferred Alternative to the NO Action Alternative.* What they *did* do was to compare the *Mitigated* and *Unmitigated* versions of FAA's Preferred Alternative. While that comparison is of value in understanding the benefits of proposed mitigation, comparison of the Mitigated Preferred Alternative to the No Action Alternative would answer the question of greatest concern to our residents: *"How will aircraft-related noise exposure change for me if the FAA pursues its proposed action?"* The fact that this comparison was not made is a fatal flaw!

** If the FAA did this comparison, it was not included in material distributed to the public or in any form comprehensible to lay people or in any form recognized by professionals (see Report by Harris Miller Miller & Hanson, Inc. for the County of Westchester, dated June 22, 2007) or presented orally at either of the two meetings hastily held in Rockland.*

In addition, FAA Order 1050.1E "Environmental Impacts: Policies and Procedures" states that noise exposure should be "compared to the No Action alternative for the same time frame." If that were done, it would show the change that the community would likely experience at the time of implementation.

The practice of comparing the mitigated and unmitigated versions of the Preferred Alternative has confused many members of the public who think the unmitigated version means the same as No Action. The FAA is attempting to make changes that will profoundly affect the residents of our region "under the radar screen."

I call for the FAA to change its stance and prepare a Supplemental EIS or Supplemental Environmental Assessment and allow for public comment on that document to clarify and ensure that all relevant issues are aired. This should include an analysis of suggestions made at the July 30 meeting in Rockland and others made in writing. A valuable suggestion submitted from Village of Sloatsburg Trustee Brian Nugent and deserving of attention relates to the Modifications to Existing Airspace (MTE) Alternative which would fan out departure routes while leaving the existing arrival paths in their current locations. This would eliminate the controversial Newark Runway 22 flight path over Rockland.

In addition the public comment period should be extended to give this county and others an opportunity to analyze the noise, air and water quality impacts. We cannot take the word of this federal agency that its redesign would have little impact on our communities, because its stated goal is something else entirely. *The FAA is focusing on the ever-increasing numbers of flights and the long delays at airports, not the quality of life of those on the ground.*

Considering the increase in air traffic from Stewart Airport which has already been reported as a result of additional air carriers, and which will continue to grow under the management of the Port Authority – and the fact that air traffic from Stewart was not considered or analyzed by the FAA – I believe that the Redesign Proposal is deficient and should not be implemented.

Very little has been said about air quality. With up to 600 planes flying over Rockland every day, I want to know if the FAA his hard information on how this will affect the quality of our air? In 2004, the U.S. Environmental Protection Agency identified 10 counties in New York State that are not in compliance with the EPA's health-based standards for fine particle pollution. Rockland is one of those counties. The EPA, through the auspices of the Clean Air Interstate Rule, has promised to bring Rockland and other counties up to standards by 2010. If these flights are to begin flying over the county in 2011, what will happen to our compliance with these vital health standards?

The proposed flight pattern could send 600 flights a day directly over Rockland's U.S. EPA Federally Designated Sole Source Aquifer. In addition to the pollution that will reach the ground and affect the aquifer, there is also the danger of an aircraft disaster that would be a major catastrophe affecting over two million people who depend on this aquifer for their water.

As others have so eloquently stated, there will be a deleterious effect of the airplane noise over our parks. Increased airplane noise will certainly have a negative effect on the enjoyment of our open spaces as well as a negative effect on the fauna in our parks.

As part of the public record I wish to commend Legislator Pat Withers from the Town of Ramapo for his leadership role in bringing those proposed changes to light, together with Legislator Pat Moroney of Orangetown. Elected legislative leaders in Rockland, its towns and villages should have received direct notice from the FAA years ago and hearings should have been scheduled to obtain local input. I also wish to thank Congressman Eliot Engel for arranging a meeting in Washington with FAA officials followed by a public meeting in Rockland. Thanks also to Ramapo Town Supervisor Christopher St. Lawrence for hosting a televised public meeting; to other elected officials who traveled to Washington and all Rockland citizens who have joined in solidarity to prevent implementation of this redesigned airspace which poses such threats to the quality of life.

/s/ Harriet Cornell
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August 31, 2007

Marlon C. Blakely, Administrator
Federal Aviation Administration
Orville Wright Bldg. (FOB10A), Suite 1010
800 Independence Avenue SW
Washington, DC 20591

Steve Kelley
Federal Aviation Administration
c/o Nessa Memberg
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Reston, VA 20191

Dear Administrator Blakely and Mr. Kelley:

On behalf of the County Attorney of Rockland County, New York, we provide the following comments on the Final Environmental Impact Statement on the New York/New Jersey/Philadelphia Metropolitan Area Airspace Redesign ("EIS") (July 2007).

Teno A. West
Lawrence R. Liebesman
Steven Kelton

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* * *

(G) The Impacts on Section 4(f) Resources Require, at a Minimum, Additional Comment Period Before the ROD can be Released.

The Secretary of Transportation may approve a project that requires the "use" of any publicly-owned land from a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance or land from a historic site of national, state, or local significance only when two conditions are met: 1) when there is no prudent and feasible alternative to the use of such land; and 2) when the project includes all possible planning to minimize harm resulting from the use. 49 U.S.C. § 303(c)(1)-(2). Indirect adverse impacts, such as noise and light, constitute a constructive use that prevents the use of these so-called "4(f)" resources for their intended purpose.[26] EIS at 5-42.

The EIS indicates that the FAA is still studying the effect of noise increases and light pollution on 4(f) resources, and would include that evaluation in the ROD. In fact, the agency lists twelve "4(f)" areas which it is still studying – an admission that a substantial amount of work is not yet done. Treasures like the Appalachian National Scenic Trail and the Delaware Water Gap National Recreation Area are two of the parks whose future will be decided with essentially no public participation. *See, e.g.*, EIS at 5-46, 59, 64, 77, 79, 95, 99, 101, 117, 120, 122, and 124.

Even the National Park Service ("NPS") seems concerned. Despite NPS's environmental resources and visitor enjoyment being at risk, the FAA did not address NPS's concerns related to noise analysis methodology. *See* NPS Comments on Noise Mitigation Report (May 15, 2007) at 2. Like the Park Service, Rockland County believes that DNL is not appropriate as the only metric for determining noise impacts to parks. No technical rationale supports use of DNL to predict noise impacts in outdoor recreational settings. *See* Fidell Report. "Additional metrics, such as time above ambient and percent time audible, provide a more complete and accurate description of potential noise impacts on national parks and other noise-sensitive receptors." NPS Comments at 3. Indeed, the FAA's NEPA procedures recognize that the agency "will consider use of appropriate supplemental noise analyses in consultation with officials having jurisdiction for national parks, national wildlife refuges and historic sites including traditional cultural properties where a quiet setting is a generally recognized purpose. . . ." Park 1050 at A-65 (sec. 14.8). Yet, here the FAA simply decided that using any metric other than DNL was simply "too complex," even for assessing noise impacts to such sensitive resources. FAA response to NJCAAN comments at 43. This cavalier approach stands in marked contrast to the FAA's action in *Grand Canyon Trust v. FAA*, 290 F. 3d 339 (D.C. Cir. 2002) where the agency conducted a detailed supplemental noise analysis that addressed the natural quiet of Zion National Park from a proposed construction of a local replacement airport.

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[26] The term "4(f)" simply refers to the original section of the Department of Transportation Act. Even though the section has been recodified, the original usage continues as a way to prevent needless confusion. *See* 23 C.F.R. § 771.107(e), n.2.

Here the County submits that going beyond DNL to evaluate both maximum noise level, and total number of noise intrusions to these resources is a reasonable, scientifically valid approach. The County also maintains it must make its noise impact analyses available for additional public comment so that the impacts to these sensitive resources may be fully evaluated by decision-makers prior to issuing the ROD. While the 4(f) findings may be made outside the EIS process, the analysis of impacts to 4(f) resources is properly part of, and must be considered under, the EIS.

(H) The Out-of-Date or Incomplete Information Require a Supplemental NEPA Document and Public Comment.

In the above arguments, Rockland County has illustrated how the FAA is flying its models on data that are either old, incomplete, or just plain wrong. For example, the FAA's flight projections were all made before the tragic events of September 11, 2001 – nearly six years ago. EIS at 68. These projections would therefore not take into account huge price increases in aviation fuel and the now-imminent expansion of Newburgh/Stewart International Airport ("SWF"). FAA's use of an obsolete dosage-effect relationship to estimate noise impacts from DNL values has not been technically defensible for more than a decade. And the noise impacts on many popular parks have not even been released yet.

These shortcomings directly contravene the NEPA implementing regulations that require environmental information to be "of high quality." 40 C.F.R. § 1500.1. High quality information furthers the important policy goals of "[a]ccurate scientific analysis, expert agency comments, and public scrutiny." *Id.* Rockland County encourages those policies and hereby requests the FAA to take whatever steps are necessary to base its decision on high quality information.

One of the Agency's first steps, according to NEPA guidance, could include issuing a supplemental EIS. NEPA regulations are clear on this point: "If the incomplete information relevant to reasonably foreseeable significant adverse impacts is essential to a reasoned choice among alternatives and the overall costs of obtaining it are not exorbitant, the agency shall include the information in the environmental impact statement." 40 C.F.R. § 1502.22. Here, the incomplete "4(f)" data do not appear to be exorbitant, yet are essential to a proper decision. Instead of pushing the ROD out the door, the FAA should wait until the parks study is finished and include it in a supplemental EIS.

This same supplemental EIS should use another metric than DNL, or explain why DNL is an appropriate measure of noise impact. The rule is that the FAA "shall insure the professional integrity, including scientific integrity, of the discussions and analyses in environmental impact statements." 40 C.F.R. § 1502.24. It is hard to square this unambiguous regulation with expert reports that the FAA is still using noise impact methods that are "demonstrably biased, inaccurate, and unreliable." Fidell Report. Here, the FAA should not be given deference because it is not basing its decision on "generally accepted scientific approaches or research methods." See Methow Valley Citizens Council, 490 U.S. at 334 (Agencies are entitled to substantial deference if they rely on the preceding techniques). A supplemental EIS could cure FAA's deficiency in this regard.

* * *

14 Comments on Parks, Wildlife, and Historic Areas

14.1 DOT Section 4(f)

14.1.1 Orange County

Comment:

There is general concern about the impact to natural wildlife. The Warwick area is home to an Audubon preserve and the noise impacts will be detrimental to both the birds as well as visitors to the preserve.

Response:

The Mitigated Preferred Alternative reduces noise exposure (compared to Future No Action) by as much as much as 4 dB DNL in some parts of Orange County.

14.1.2 Sandy Hook

Comment:

The ocean routing mitigation threatens nesting of various endangered species within the Sandy Hook unit of the National Park Services Gateway national recreation area.

Response:

EWR departures on the night-time ocean route will typically be from 9,000 to 10,000 feet as they cross Sandy Hook. This is far above the altitudes at which birds are endangered by aircraft.

14.1.3 John Heinz National Wildlife Refuge

Comment:

The proposed mitigation measures completely omit any suggestion of mitigation on the impacts to the John Heinz National Wildlife Refuge.

Response:

The Mitigated Preferred Alternative no longer uses right turns off Runway 27L at Philadelphia. The remaining headings do not turn aircraft towards the wildlife refuge.

14.1.4 Historic Sites

Comment:

The proposed reroutes will create a noise nuisance to cultural resources which are on the national register for historic sites.

Response:

The FAA completed analysis for DOT Section 4(f) properties, historic/cultural resources, and wildlife as described in separate sections within the EIS. Please see Sections 4.4, 4.5, and 4.7.

14.1.5 National Park Service

Comment:

Overall, the Noise Mitigation Report and Operational Analysis of Mitigation of the NY/NJ/PHL Airspace Redesign do not address National Park Service (NPS) *concerns related to noise analysis and methodology as previously outlined in the U.S. Department of the Interior. comments on the DEIS.*

Response:

Additional analysis was completed for the properties of concern and is included in the Final EIS.

14.1.6 Rockefeller State Park Preserve

Comment:

We feel that the FAA's "mitigated proposed alternative" for the changes to the departure routes from the Westchester County Airport (HPN) will have significant adverse impacts on one of our facilities, Rockefeller State Park Preserve, located in Tarrytown, New York. We specifically request that the FAA review the regulation located in Section 4f of the Department of Transportation Act 49 U.S.C303 that requires that aircraft routing decisions resulting in serious noise impacts on protected parkland be examined to determine if there are no prudent and feasible alternatives to use of airspace over parkland.

Response:

There is no increase in aircraft overflying the park due to the Mitigated Preferred Alternative. The change to departure procedures between the Preferred Alternative and the Mitigated Preferred Alternative restores a track on which aircraft fly today. In the interest of eliminating the impact of the Preferred Alternative on noise in residential neighborhoods to the north, the reduction of park overflights anticipated in the Preferred Alternative has been cut back. Changing a procedure that has not yet been decided (or flown) is not forbidden by regulation.

United States Department of the Interior

[SEAL] [LOGO]

IN REPLY REFER TO

TAKE PRIDE
IN AMERICA

OFFICE OF THE SECRETARY
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200 Chestnut Street
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June 12, 2006

ER 05/1089

Mr. Steve Kelley, FAA-NAR
c/o Nessa Memberg
12005 Sunrise Valley Road, MS C302
Reston, Virginia 20191

Dear Mr. Kelley:

The U.S. Department of the Interior (Department) has reviewed the December 2005 Draft Environmental Impact Statement (DEIS) for the New York/New Jersey/Philadelphia (NY/NJ/PHL) Metropolitan Area Airspace Redesign (Airspace Redesign). The DEIS was prepared by the U.S. Department of Transportation, Federal Aviation Administration (FAA). Notice of availability for the DEIS was published in the December 30, 2005 Federal Register (*Federal Register*, Vol. 70, No. 250, page 77381).

The Department provides the following comments pursuant to the National Environmental Policy Act of 1969 (83 Stat. 852, as amended; 42 U.S.C. 4321 *et seq.*) (NEPA), as well as the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) (ESA), the Migratory Bird Treaty Act of 1918 (40 Stat. 755, as amended; 16 U.S.C. 703-712), Section 4(f) of the Department of Transportation Act of 1966 (96 Stat. 2419; 49 U.S.C. 303(f)), and the Wild and Scenic Rivers Act of 1968 (82 Stat. 906, as amended; 16 U.S.C. 1271-1287).

BACKGROUND

The basic air traffic environment for the NY/NJ/PHL Metropolitan Area airspace was designed and implemented in the 1960s. Since that time, the volume of air traffic and the types of aircraft using the region's air traffic control system have changed significantly, while the basic structure of the NY/NJ/PHL airspace has essentially remained the same. The Airspace Redesign is proposed to address the following needs identified by the FAA: accommodate growth while maintaining safety and mitigating delays, and accommodate changes in the types of aircraft using the system. The purpose of the proposed Airspace Redesign is to increase the efficiency and reliability of the airspace structure and the air traffic control system.

The proposed action is to redesign the airspace in the NY/NJ/PHL Metropolitan Area, including developing new routes and procedures to take advantage of improved aircraft performance and emerging air traffic control technologies. The proposed action does not include any physical changes or development of facilities, nor does it require local or State actions. No physical alteration to any environmental resource would occur and no permits or licenses would be required. The Airspace Redesign would not require changes to any Airport Layout Plan and infrastructure funding is not expected to be necessary. Since the Airspace Redesign involves modifications to airspace configuration and air traffic management procedures, direct FAA action would be required, including the design, development, implementation, and use of new or modified air traffic control procedures and reconfigured airspace.

The proposed Airspace Redesign would primarily affect air traffic to and from five major airports (John F. Kennedy International, LaGuardia, Newark Liberty International, Teterboro, and Philadelphia International), as well as 16 satellite airports. Numerous additional airports are located within the study area, but are largely unaffected by the proposed action because of the types of flights they handle.

In addition to the No Action alternative, the FAA is considering three alternatives for Airspace Redesign: (1) Modifications to Existing Airspace; (2) Ocean Routing; and (3) Integrated Airspace with two variations – with and without an Integrated Control Complex (ICC) that would merge two existing air traffic control facilities (the New York Terminal Radar Approach Control and the New York Air Route Traffic Control Center). Any required environmental analysis for the establishment of an ICC (*i.e.*, physical construction of a new facility) would be handled separately based on the independent utility of the ICC from the Airspace Redesign. The DEIS evaluates changes in airspace usage that would occur with and without the physical integration of the two existing air traffic control facilities into a single ICC.

The DEIS does not designate a preferred alternative, but indicates that the Integrated Airspace alternative with the ICC would produce the most improvements in the use of the region's air space. The DEIS states that the Ocean Routing alternative would not address the stated purpose and needs of Airspace Redesign.

GENERAL COMMENTS

Based on information presented in the DEIS, the Department acknowledges the needs identified by the FAA, specifically to redesign the region's airspace to improve efficiency, reduce complexity, accommodate current numbers and types of flights, incorporate newer air traffic control technologies, ensure safety, and minimize delays. The Department concurs that the alternatives under consideration by the FAA are reasonable options to address the stated purpose and needs.

The Department's key recommendation is to revise the information presented in the DEIS to: (1) clarify and expand the analysis of impacts to national park units and other Section 4(f) properties from noise and visual changes, and evaluate the compatibility of each alternative with local management plans for such sites; (2) include conservation measures to protect federally listed species from noise and disturbance; and (3) expand the assessment of the potential for Airspace Redesign to affect the frequency of aircraft-bird collisions, and evaluate measures to minimize collision hazards. Information presented in the DEIS regarding noise and visual changes, federally listed species, and aircraft-bird collisions is currently insufficient. However, these insufficiencies can be rectified by incorporating the Department's recommendations for revision into the Final Environmental Impact Statement (FEIS). The Department requests that the FAA coordinate the resolution of these issues with the National Park Service (NPS) and the U.S. Fish and Wildlife Service (FWS) during development of and prior to issuance of the FEIS.

SPECIFIC COMMENTS

Noise (Section 4.1)

Insufficient Data

The information presented in the DEIS should be revised in the FEIS to address potential impacts from changes in routes, flight paths, and operating characteristics of aircraft under each alternative. It is difficult to determine potential impacts to the 30 national park units within the study area with the data provided. For example, Fire Island National Seashore, Delaware Water Gap National Recreation Area, and Upper Delaware Scenic and Recreational River are within the airspace of Islip and Newburgh/Stewart airports. These park units may be subject to impacts from routing more traffic over them. However, information in the DEIS is insufficient to evaluate such impacts because the airspace of the various airports, the proposed reroutes of flights, and the locations of parks, historic sites and other noise-sensitive receptors are not clearly illustrated. Historic resources and parks, including the park units listed above, should be added to the Alternative Flight Track Change Illustrations located in Appendix E, Attachment C. It is not clear how determinations regarding impacts to NPS resources were made. Data required to make such determinations were either not available or not clearly identified.

The DEIS states (page 4-3) that noise-sensitive sites were evaluated by identifying the *"noise-sensitive sites located within the significantly impacted census blocks by using the GIS land use data. Each site was assigned the noise exposure level computed for the census block in which it resided."* However, the DEIS does not contain a clear explanation of how the "significantly impacted" census tracks were identified. Therefore, the Department cannot concur with conclusions in the DEIS relating to impacts to NPS resources.

Section 3.3.11 of the Noise Modeling Technical Report indicates that grid-point analysis was conducted for 281 NPS points. The results of the grid point analysis are not presented. A clear presentation of the grid-point data is essential for identifying potential impacts to national park units and other Section 4(f) properties within the study area.

Inconsistency with FAA Order 1050.1E

The analysis of impacts to units of the National Park System and other noise-sensitive receptors presented in the DEIS is not consistent with FAA guidance for conducting such analyses. Section 6.2i of FAA Order 1050.1E (FAA guidance for implementing NEPA) states:

"Additional factors must be weighed in determining whether to apply the thresholds listed in Part 150 guidelines to determine the significance of noise impacts on noise sensitive areas within national parks . . . For example, Part 150 guidelines may not be sufficient for all historic sites (see 6.2h above) and **do not adequately address the effects of noise on the expectations and purposes of people visiting areas within a national park or national wildlife refuge** where other noise is very low and a quiet setting is a generally recognized purpose and attribute." (emphasis added).

Inadequate Metrics

The main metric used for noise analysis in the DEIS (*i.e.*, Day/Night Average Sound Level (DNL)) is not appropriate as the only metric for determining noise impacts to national parks. Additional metrics, such as time above ambient and percent time audible, provide a more complete and accurate description of potential noise impacts on national parks and other noise-sensitive receptors.

The Department finds that the noise analysis presented in the DEIS for NPS units and other noise-sensitive receptors in the study area is inadequate, and recommends revising the impact analysis to follow the correct FAA guidelines for noise-sensitive receptors and to include audibility and other more appropriate metrics in the assessment of impacts.

Section 4(f) Properties (Section 4.4)

Corrections

Page 3-37, Table 3.18: Great Swamp National Wildlife Refuge is approximately 7,600 acres, not 7,500 acres.

Figure 3.20: Great Swamp National Wildlife Refuge and the Lower Delaware Scenic and Recreational River are missing from the map.

Impacts to Section 4(f) Resources

On page 4-3, the DEIS states, "*Location data was only available for some 4(f) sites and historic sites*;" however, Figure 3.21 is presented as a map of all historic sites within the study area. Therefore, it is unclear why locational data could not be found for any site included on the map. The information presented in the DEIS should be revised for the FEIS to clarify which 4(f) and historic sites did not have locational data available, why this information was unavailable, and how these omissions affect the analysis of impacts to Section 4(f) and historic sites.

On page 4-4, the DEIS states " . . . *noise exposure levels for all identified noise-sensitive areas were compared with the noise levels designated as compatible using the FAA's Part 150 land use compatibility table.*" As discussed above, the Part 150 guidelines are not the correct guidelines for assessing impacts to noise-sensitive receptors, which include Section 4(f) resources. In addition, the metrics used in the impact assessment may not be appropriate for a Section 4(f) evaluation. The FEIS should specifically identify and discuss the results of the impact analysis on the noise-sensitive sites within the study area. The DEIS also refers to residential land use as "noise-sensitive areas" (*e.g.*, Section 4.1.4.3, page 4-15), thereby making it impossible to distinguish impacts to residential areas from impacts to noise-sensitive areas that are not residential (*i.e.*, Section 4(f) resources).

Based on the above uncertainties, the Department cannot concur with the conclusion in the DEIS that there is no use of a Section 4(f) resource. We recommend that the FAA perform a more thorough analysis of impacts to National Park System units and the other listed Section 4(f) resources, using the correct guidelines and appropriate metrics, then re-evaluate the issue of 4(f) use.

Impacts to Section 6(f) Resources: Land and Water Conservation Fund (LWCF) Sites

Typically, the activities described in the DEIS would not likely result in direct impacts on, or conversion of, a Section 6(f) area to a non-recreation use. However, as stated above, the Department does not concur that an adequate analysis of impacts has been done for noise-sensitive receptors, which would include non-federal parks and recreation areas. In addition to conducting a more thorough impact analysis following the correct guidelines and using appropriate metrics, the Department recommends that the FAA contact the LWCF State Liaison Officer for each effected State to ensure that all Section 6(f) resources have been identified, and to obtain local input regarding potential impacts of the proposed Airspace Redesign.

Wild and Scenic Rivers (Section 4.6)

Page 4-51: The Upper Delaware Scenic and Recreational River is located in Pennsylvania as well as New York. The Middle and Lower Delaware Scenic and Recreational River segments are located in Pennsylvania and New Jersey, not in New York.

Federally and State-Listed Species (Section 4.7.1)

Federal Endangered Species Act

Section 7(a)(2) of the ESA requires consultation with the FWS for any federal action that may affect federally listed species under FWS jurisdiction.

Low-flying aircraft may adversely affect the federally listed (endangered) roseate tern (*Sterna dougallii*) or the federally listed (threatened) piping plover (*Charadrius melodus*) or bald eagle (*Haliaeetus leucocephalus*) by disturbing nesting birds and impacting reproductive success. To protect these species, the FWS recommends flight restrictions; specifically, maintaining a minimum vertical distance of 2,000 feet above ground level (FAA Advisory Circular 91-36C) or at least 1.0 mile lateral distance[1] from active nesting sites seasonally, as follows:

- from May 1 to September 30 for roseate tern;

* * *

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[1] Note that lower vertical distances and/or smaller later distances have been deemed sufficient to prevent disturbance to nesting birds under particular circumstances. Through the informal consultation process under Section 7 of the ESA, the FWS is available to work with the FAA to refine these recommended distances based on actual noise levels and disturbance potential for particular airports or classes of aircraft.

The summary file gives a summary of the delays each simulated aircraft experiences in each phase of flight. The summary file has some features that make its delay record unsuitable for use in an airspace simulation, so it is not used in our analyses.

Table 0-2. TAAM Summary File

--------- FLIGHT TIME & DELAY SUMMARY ---------

Actual times:

Start (WP)/

Gate Delay: Total delay at gate, including delays due to intrail separation; delayed pushback due to traffic in apron area; arrival sequencing and flow control at destination airport, gate delays caused by runway congestion; delays due to late arrival of next linked flight, etc. If the aircraft departs from a waypoint, then total delay at the start waypoint (due to intrail separation or flow control) is shown. If taxiing is disabled or departure airport has runways only, then <<gate>> delay may be caused by the limit of 8 aircraft in such lineup queues. Also, intrail/flow control related delay is included.

Gnd (Dep): The sum of taxi time on departure, any delays while taxiing, and delays in lineup queue, plus takeoff run time.

Airborne: Total time from liftoff till touchdown. Includes delays due to: speed control; airborne holding; radar vectoring; altitude changes; trombone approaches.

Gnd (Arr): The sum of landing roll time, taxi time on arrival, any delays while taxiing, plus standoff delays if arrival gate wasn't available at once.

Total: The sum of the above four, i.e. including gate delay.

Scheduled times:

Per T'table: (ETA minus ETD) as in timetable when read into TAAM.

Per Sim'n: Total of taxi time on departure; lineup; takeoff run; plus airborne, time including that on SID; Enroute and STAR; landing run; plus taxi time on arrival. No delays, unimpeded movement.

Total Delay:

Act-Sched: Actual Total Time minus Scheduled (Per Simulation) Time.

New York/New Jersey/Philadelphia Metropolitan Area Airspace Redesign EIS

Response to Comment 5750: Michael T. Chezik of the US Department of the Interior

Comment Number	Comment response
1	Comment noted.
2	In response to comments received on the DEIS additional 4(f) analysis has been completed. The FEIS includes additional analysis of potential environmental impacts on the National Parks, National Wildlife Refuges and selected state parks. All management plans supplied by the NPS/FWS were reviewed while conducting the additional analysis. It should be noted that management plans were not available for all national parks/ wildlife refuges within the Study Area. General management plans were not provided for the Delaware and Lehigh National Heritage Corridor, Gateway National Recreation Area, Governor Island National Monument (only Purpose and Significance statement provided) and the New Jersey Pinelands National Reserve, Comprehensive Conservation Plans were not provided for the Stewart B. McKinney National Wildlife Refuge, Great Swamp National Wildlife Refuge, Supawna Meadows National Wildlife Refuge, and the Walkill River National Wildlife Refuge.

3	Additional analysis regarding potential impacts to federally listed species was completed and included in the FEIS.
4	Additional analysis regarding the potential for noise and visual impacts as well as impacts to federally listed species and migratory birds is included in the FEIS. Resolutions to the specific revisions requested by the DOI are provided in the responses that follow.
5	The FAA coordinated resolution of these issues with the NPS and FWS as requested.
6	In response to comments received on the DEIS additional 4(f) analysis has been completed. The FEIS includes additional analysis of potential noise impacts on the National Parks, National Wildlife Refuges and selected state parks. In addition noise exposure levels resulting from all the airspace redesign alternatives are provided for the historic sites and parks in the Study Area in Appendices F and J.
7	Significant noise impacts are defined in Table 4.1 and Section 4.1.1 of the DEIS. Census blocks that received an increase of 1.5 DNL resulting in noise exposure levels of 65 DNL or greater were considered significantly impacted census blocks.
8	See response to comment 5750 #6.
9	In response to comments received on the DEIS FAA coordinated further with

	the NPS and FWS and additional 4(f) analysis has been completed. The FEIS includes additional analysis of potential noise impacts on the National Parks, National Wildlife Refuges and selected state parks. In regard to the evaluation of potential impacts to historic sites, none of the SHPO DEIS comments included objections to the overall methodology used to identify potentially impacted historic sites.
10	Comment noted. The FEIS includes supplemental information regarding the anticipated changes in air traffic over selected National Parks, National Wildlife Refuges, and state parks.
11	Comment noted. During the development of the DEIS the FAA concluded that air traffic operations would not significantly impact 4(f) resources that included a quiet setting that is a recognized feature or attribute of the property and thus FAA guidance was used correctly in the DEIS. After additional coordination with the NPS, the FEIS includes supplemental information regarding the anticipated changes in air traffic over selected National Parks, National Wildlife Refuges, and state parks. Additional information was provided only for subject parks where the level of noise increased as a result of the Preferred Alternative or the Mitigated Preferred Alternative.

12	Table 3.18 has been corrected in the FEIS. Figure 3.20 includes the Great Swamp National Wildlife Refuge and Lower Delaware Scenic and Recreational River in the FEIS. The text has been revised to indicate that all historic resources availably electronically on the National Register of Historic Places (by a specific date) are shown on Figure 3.21. To clarify, the historic sites shown on the figure were limited to sites where locational data (i.e. latitudes and longitudes) was available. It is noted that noise levels were calculated at all of these locations and are provided in Appendix F. Through coordination with individual SHPOs the area of potential effect for cultural resources was further refined to include areas where the alternative would create a potentially significant noise impact (with the exception of the DE SHPO) and these areas were surveyed for cultural resources. The results of these surveys are included in section 4.5 of the FEIS. Figure 3.21 is meant to show a generalized overview of cultural resources within the entire Study Area.
13	Additional analysis for 4(f) properties is included in the FEIS however it should be noted that use of Part 150 land use guidelines is applicable to some 4(f) properties depending on location and function. The FAA considers residential land use as a sensitive land use in areas

	that experience DNL levels above 65 DNL and have thus disclosed them as such.
14	In response to comments received on the DEIS additional 4(f) analysis has been completed. The FEIS includes additional analysis of potential noise impacts on the National Parks, National Wildlife Refuges and selected state parks.
15	In response to comments received on the DEIS additional 4(f) analysis was completed for selected state parks. The FEIS includes additional analysis of potential noise impacts on these selected state parks.
16	Appendix J provides a listing of Section 6(f) properties as taken from the NPS Land & Water Conservation Fund website. These lists were sent to state liaison officers for confirmation of the NPS website data.
17	The text of the EIS has been revised to address this comment.
18	None of the parties involved in low-altitude aviation, neither FAA, aircraft operators, nor birds, want aircraft to fly near birds airborne or nesting. However, the phases of flight within 2000 ft of the ground are the most safety-critical for aircraft. Safe operations with transport aircraft require straight-in approaches for at least the last 2,000 feet of their descent, and departure procedures with at most a single turn between 400 feet

	and 2,000 feet. (There are exceptions where hazardous terrain or obstacles are present.) FAA's mission is the safety of air navigation, so no changes will be made to the airspace design on this account. However, it should be noted that the airspace design is not a static construction. Countless temporary conditions that require temporary changes to operations are accommodated every day in the national airspace system through the use of Notices to Airmen. Significant bird activity is one of the conditions that lead to modified temporary procedures.
19	The FAA coordinated with the FWS regarding the federally listed species. Additional analysis was completed and is included in the FEIS.
20	The tables in Appendix G have been edited to reflect this comment.
21	The text of the EIS has been revised to address this comment.
22	The text of the EIS has been revised to address this comment.
23	A discussion of the Executive Order is included in the FEIS.

* * *

46	In response to comments received on the DEIS additional 4(f) analysis has been completed. The FEIS includes additional analysis of potential environmental impacts to both the Delaware Water Gap

	National Recreation Area and the Upper Delaware Scenic and Recreational River.
47	The FAA disagrees that Floyd Bennett Field is a quiet setting. The Field is located in an urban setting and is used for various activities that are in no way associated with quiet (i.e. flying model planes).
48	In response to comments received on the DEIS additional 4(f) analysis has been completed. The FEIS includes additional analysis of potential environmental impacts to the Fire Island National Seashore.
49	The noise measurements reported for points within the Study Area are intended to provide a general context for reference for those that are interested when considering the noise modeling results. These measurements do indeed only represent a finite time frame and are not inclusive of all conditions at all areas near the measurement sites. The DEIS did not indicate that the measurement results for Robert Moses State Park were a representation of the FINS properties. Also, it is important to note that the changes in noise levels associated with each of the alternatives are solely based on the computations from the NIRS noise modeling. In accordance with FAA Order 1050.1E the field noise measurements were not used to calibrate the noise model.

50	We have further consulted with the NPS regarding the proposed changes in ISP air traffic patterns for the Integrated Airspace Alternative as related to potential impacts to the Fire Island National Seashore, in particular the designated wilderness. We have followed the correct FAA guidelines and used appropriate metrics, and have further coordinated those guidelines/metrics with NPS. The analysis has taken into account both noise and visual impacts that may adversely impact the visitors experience of the FINS and the Wilderness. In addition the FAA considered mitigation to the extent possible. Additional analysis and proposed mitigation are included in the FEIS.
51	Additional analysis regarding the potential for noise and visual impacts as well as impacts to federally listed species and migratory birds is included in the FEIS. The FAA coordinated resolution of these issues with the NPS and FWS as requested.

CEQ's definition of a minority population. Therefore the population in census block was considered a minority population if the minority population percentage of the census block was 50 percent or meaningfully greater than the minority population percentage of an appropriate unit of geographic analysis. The appropriate units of geographic analysis, was determined to be the county in which the impact took place and/or the nearby census blocks not significantly impacted.

Finally, it was determined whether a low-income or minority community subjected to a high and adverse human health or environmental impact was disproportionately impacted. Disproportionate impacts occur when the high and adverse human health or environmental impact is either predominantly borne by a low-income or minority population or is more severe in magnitude than the impact on the non low-income or non-minority population.

Results

The following paragraphs discuss the results of the environmental justice analysis.

LaGuardia Airport

One census black would be significantly noise impacted by the Integrated Airspace Alternative

Variation without the ICC and the Integrated Airspace Alternative Variation with ICC near LGA. See Figures 4.19, 4.20, and 4.24. This block consists of the entirety of Rikers Island, which is New York City's main penal facility.

The minority population of Rikers Island would be approximately 92 percent in both 2006 and 2011. Therefore, the population of Rikers Island would be considered a minority population per the first CEQ criteria.

Since the minority population of Rikers Island would be subject to significant noise impacts, and this impact is borne solely by the minority population, it may be concluded that there would be a disproportionate high and adverse environmental impact to a minority community.

Newark Liberty International Airport

Census blocks near EWR would be significantly impacted as a result of the Modifications to Existing Airspace and Integrated Airspace Alternatives. See Figure 4.26. Significantly impacted blocks would vary depending on the alternative. Racial composition and median income for the significantly noise impacted census blocks near EWR are shown in **Table 4.15**.

With the exception of census block number 27, the minority population of the significantly impacted census blocks near EWR exceeds 50 percent in both 2006 and 2011. Therefore, the population of the significantly impacted census blocks near EWR exceeds 50 percent in both 2006 and 2011. Therefore, the population of the significantly impacted census blocks would be considered minority populations per the first CEQ criteria and the significant noise impacts near EWR would constitute a high and adverse environmental impact on a minority population. Since high and adverse impact is borne almost solely by the minority population, it may be concluded that there would be a disproportionate high and adverse environmental impact to a minority community.

It is noted that with one exception, census block number 27, the population in all of the census blocks shown on Figure 4.26 would be considered minority populations. (See Appendix I for minority population and median income statistics for these census

Table 4.15

EWR – Environmental Justice

Minority Population and Median Income for Significantly Noise Impacted Census Blocks

Census Block	% Minority		Median Income		Modifications		Integrated		
							Without ICC		With ICC
	2006	2011	2006	2011	2006	2011	2006	2011	2011
1	88	88	$25,428	$27,913	X		X		
2	94	95	$24,215	$25,523	X	X	X	X	X
3	84	85	$24,215	$25,523	X	X	X	X	X
4	100	100	$24,215	$25,523	X	X	X	X	X
5	43	56	$24,215	$25,523	X	X	X	X	X
6	98	99	$71,471	$80,917	X	X	X	X	X
7	61	60	$71,471	$80,917	X		X		
8	89	90	$24,215	$25,523	X		X		
9	91	91	$24,215	$25,523	X		X		
10	89	89	$24,215	$25,523	X		X		
11	95	95	$24,215	$25,523	X		X		
12	71	73	$25,428	$27,913	X		X		
13	67	65	$25,428	$27,913	X		X		
14	94	94	$25,428	$27,913	X				
15	50	53	$25,428	$27,913	X		X		
16	76	80	$42,670	$47,929	X		X		
17	75	79	$42,670	$47,929	X		X		
18	62	69	$42,670	$47,929	X		X		
19	80	84	$42,670	$47,929	X		X		
20	82	85	$42,670	$47,929	X		X		
21	83	86	$42,670	$47,929	X		X		
22	84	89	$23,269	$24,460	X		X		
23	84	86	$28,317	$30,748	X		X		
24	100	100	$28,317	$30,748	X		X		
25	93	95	$28,317	$30,748	X		X		
26	81	82	$21,061	$22,853	X		X		
27	36	36	$21,061	$22,853	X		X		
28	75	78	$28,317	$30,748	X		X		
29	79	82	$28,317	$30,748	X		X		
30	83	88	$23,269	$24,460	X		X		
31	65	74	$28,317	$30,748	X		X		
32	56	63	$28,317	$30,748	X		X		
33	98	98	$28,317	$30,748	X		X		
34	92	94	$28,317	$30,748	X		X		
35	85	86	$21,061	$22,853	X		X		X
36	95	95	$21,061	$22,853	X		X		X
37	85	86	$21,061	$22,853	X	X	X	X	X
38	100	100	$21,061	$22,853	X	X	X	X	X
39	95	95	$32,004	$34,584					X
40	89	88	$32,004	$34,584	X		X		X
41	77	78	$32,004	$34,584	X		X		X

Table 4.15

EWR - Environmental Justice
Minority Population and Median Income for Significantly Noise Impacted Census Blocks

Census Block	% Minority		Median Income		Modifications		Integrated		
							Without ICC		With ICC
	2006	2011	2006	2011	2006	2011	2006	2011	2011
42	84	86	$28,317	$30,748	X				
43	97	100	$24,940	$27,500	X		X		X
44	98	100	$24,940	$27,500	X		X		X
45	83	83	$32,004	$34,584	X				X
46	79	79	$34,362	$37,297	X	X	X	X	X

Source: HNTB Analysis 2007.

blocks.) This indicates that there would not be a design element, other than the tracks associated with the Future No Action Airspace Alternative, which would not impact an environmental justice community.

No significantly impacted blocks near EWR have a median income below the poverty level. Therefore, no significant noise impacts near EWR would be considered a disproportionate high and adverse environmental impact to a low-income community.

Philadelphia International Airport

Census blocks near PHL would be subject to significant noise impacts as a result of the Modifications to Existing Airspace and the Integrated Airspace Alternatives. **See Figure 4.27.** The number of significantly impacted blocks would vary depending on the alternative and year. Racial composition and median income for the significantly noise impacted census blocks near PHL are shown in **Table 4.16**. With the exception of census block number 33, impacted blocks would have minority population of Less than 50 percent. In addition when compared to the minority population for Delaware County, 18.7 percent, the minority population of census block number 45 could be considered meaningfully greater than the surrounding area. Therefore, the population of census blocks 33 and 45 would be considered minority populations per the CEQ criteria. Since census blocks 33 and 45 are only two of 54 census blocks significantly impacted by the 2006 Modifications to Existing Airspace Alternative and the 2006 Integrated Airspace Alternative Variation without ICC, it is concluded that there would not be a disproportionate high and adverse human health or environmental impact on a minority population.

There are no impacted census blocks near PHL with a median income which is lower than the poverty level. Accordingly, there is not a disproportionate impact to a low-income community due to the significant noise impacts near PHL.

Summary of Environmental Justice Impacts in the Study Area

The Modifications to Existing Airspace Alternative, Integrated Airspace Alternative Variation without ICC, and the Integrated Airspace Alternative Variation with ICC all would result in disproportionate impacts to minority populations and, therefore, would result in significant environmental justice impacts. Mitigation measures to avoid, minimize, rectify, reduce, eliminate, or compensate for these significant impacts

* * *

4.6.2 Internet Submission

Comment:

It is unreasonable for us to be restricted to submitting written comments while at the meetings. Why is there no provision for additional venues for submitting comments?

Response:

The public meetings for Mitigated Preferred Alternative were held in late April. During the month of April and through the 11th of May, the public were encouraged to submit comments at the meetings as well as on line. The public meetings held on June 27 and 28, after the formal comment period had closed, were held by special request of New Jersey's Congressmen as an addition to the original set of public meetings. At this time, the ability to accept comments on the website had already been removed. Consequently, only written comments from those attending the meetings could be accepted.

4.7 Next Steps

4.7.1 Compliance

Comment:

What happens if the mitigated plan is implemented and models were wrong? Does the FAA plan to monitor the affected neighborhoods for agreement with the predicted models? What if the noise is well above the *predicted levels? Are there plans to (quickly) reverse the implementation?*

Response:

FAA Order 1050E.1, paragraph 512b, states that vis-à-vis each mitigation measure, in the Record of Decision, "A monitoring and enforcement program shall be adopted and summarized where applicable for any such mitigation." These programs have not yet been developed. In the unlikely event that the noise exposures increase significantly, noise abatement will be required. There are many ways to accomplish noise abatement. Reversing the implementation of the Preferred Alternative is among the least likely.

4.7.2 Ensuring Mitigation

Comment:

If the Mitigated Preferred Alternative is chosen for implementation, how can we be sure the FAA will not revert to implementing the original preferred alternative?

Response:

The FAA will have no reason to use the original Preferred Alternative. With one exception, only mitigation measures that did not harm efficiency or safety were used to create the Mitigated Preferred Alternative. The exception is midnight ocean routing, which, if it is formally accepted as a mitigation in the Record of Decision, will be easy to monitor.

* * *

this role. The default agency in this case would be the FAA. 2) Specification and provision for long term funding of mitigation monitoring. 3) Specification and provision for measuring and reporting on details of how well the mitigation is being executed over time and its effectiveness in meeting originally assumed noise reduction levels. Specification of protocol and response timeframes for obtaining reports by interested governmental entities and members of the public. 4) Specification of parameters and details for the mitigation such as: a) detailed specification on the assumed flight paths; b) allowed deviation from this path under which the effectiveness of the mitigation is maintained; c) specification of the allowable range of usage of demand based flight headings (i.e., how much of the time each can be used and still maintain assumed mitigation effectiveness); d) anticipated change in fleet mix and fleet volume over useful life of mitigation; e) analysis showing that the mitigation effectiveness and goals of eliminating significant impact is maintained throughout the deviations in (b)-(d). 5) Description of contingency action and timeframes for action to be taken when outages are found in (4). Description of what action will be taken if and when it is found that mitigation effectiveness cannot reasonably be brought to the level of the originally assumed. To execute these responsibilities (comment S36), it is desirable that the responsible agency have the ability to *do noise modeling to determine noise impacts from aircraft flight path and fleet mix variations and ability to assess the overall impacts of multiple outages.*

Response:

FAA Order 1050.1E requires a compliance monitoring plan for any specified mitigation. It is at the discretion of the FAA to include this specification in the Final EIS or the Record of Decision (ROD). With regard to this airspace redesign project, the compliance monitoring specification will be included in the ROD.

* * *

Of the four alternatives being considered, the FAA has determined the Ocean Routing model does not meet operational or design needs. Unfortunately, the FAA has made the puzzling decision that ocean routing can instead be used as a noise mitigation strategy. As indicated by the FAA as far back as 2005, ocean routing does not reduce delays or meet system demand, nor does it improve user access, expedite arrivals and departures or increase flexibility. Routing aircraft over 150 miles out of their way when it doesn't produce any noise benefits is environmentally irresponsible.

Oceanic routes in and out of Newark airport would disproportionately affect the quality of life on Staten Island, hampering Island residents with the lion's share of airplane noise for the entire region.

In the alternative, the existing air traffic patterns which disperse the direction of nighttime Newark *departures should remain in place, rather than concentrate this impact on the Middletown/northern Monmouth County coastal region.*

Response:

These comments are representative of a large set. They show the dilemma: about 175,000 people near Elizabeth, NJ would be adversely affected by the Preferred Alternative; about 127,000 people in Staten Island would see noise decreases. With Mitigation, much of this impact is undone, the increases as well as the decreases. The difference is that the noise decreases from mitigation go to people who are significantly affected. Noise increases from mitigation affect people at much lower overall exposure. Ocean routing (of any flight not going overseas) is very expensive to the users of the airspace and annoying to residents of the areas near the new route. But the FAA is obliged to mitigate significant noise increases, and this way of doing it has the least deleterious effects.

18.4.2 Elizabeth vs. Jersey Shore

Comment:

Moving noise from Elizabeth to Jersey shore is unacceptable.

Response:

Nighttime ocean routing mitigates significant increases in noise in and near Elizabeth, NJ. The corresponding noise on the Jersey shore does not meet any regulatory thresholds for reporting or mitigation.

18.4.3 Noise Transfer

Comment:

Transferring aircraft noise from one populated area of the state to another is not an acceptable alternative.

Response:

This is a sentiment that has been voiced by many during this process. The mitigations that were recommended for the Preferred Alternative only include those strategies that minimize the overall affected population. It has been a longstanding policy of the FAA to avoid shifting noise from one community to another solely for noise abatement purposes.

18.4.4 Increased Fuel Costs

Comment:

Regarding Section 8 of the "Operational Analysis of Mitigation of the NY/NJ/PHL Airspace Redesign" concerning the EWR Night-time Ocean Routing, we believe that this routing would cause a significant operational burden to UPS. The additional 7.4 minutes of flight time (as estimated by the FAA) required for each of our departures that would be required to fly the procedure would generate considerable costs as well as the potential for significant down-line *disruption to our network. The proposed muting would impact a total of 19 of the most critical flights in our system each week (under UPS' current operating schedule) approximately 50% of the time, based on current runway utilization. Variable costs of the additional flight time alone are conservatively estimated at $450,000 to $500,000 per year based on a $2.11 per gallon fuel cost. True cost of the additional flight time would be much higher were we to consider fixed ownership costs. The down-line impact cost to our network is not precisely estimatable at this time, but suffice it to say that shipments out of New York for our customers are of significant economic importance. In addition, the FAA has found that redirecting night traffic from Newark over Staten Island would cost $300 million a year in fuel costs alone. That cost will be passed along to the already overstressed air travel consumer. The cost of nighttime ocean routing does not justify the implementation of this mitigation strategy.*

Response:

Midnight ocean routing prevents significant noise increases southwest of EWR, but it is expensive.

18.4.5 Operational Impacts

Comment:

We disagree with the FAA on the operational impacts of the nighttime oceanic routing. Both LGA and JFK airport are very busy in the hours between 10:30pm and midnight. These airports generate over 100 *operations during this time period, and interaction with EWR departures flying the oceanic routing will increase traffic complexity and controller workload, both of which have potential to significantly delay aircraft. Delays at this time are often exacerbated due to historically lower FAA staffing levels, and crew time requirements are also at critical levels. We think the FAA needs to look at actual summer schedules and determine the potential of this procedure to produce large delays.*

Friends of the Rockefeller
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May 4, 2007

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Comments on NY-NJ-PHL,
Integrated Airspace Redesign

Friends of the Rockefeller State Park Preserve, Inc. is a not-for-profit support organization dedicated to the preservation and enhancement of the Rockefeller State Park Preserve as a natural area and a significant public amenity. The Park Preserve is owned by the State of New York, and is a "park preserve" under the New York State parkland classification scheme, dedicated to walking, carriage driving, horseback riding, fly fishing, bird watching, photography, family fishing and winter cross-country skiing. Formerly part of the John D. Rockefeller estate, it is a park of national, state and local significance. This comment letter addresses the FAA's proposed "mitigated preferred alternative" departure corridor as described in the FAA's April 6, 2007 Noise Mitigation Report ("FAA Proposal") insofar as it addresses departures and landings at the Westchester County Airport ("HPN").

The FAA Proposal will concentrate approximately 75% of the departures from HPN in a narrow corridor running to the northwest that encompasses the area lying between the intersections of Route 448 and Lake Road. Route 448 and Route 117, and proceeding northwest encompassing the area between Route 117 and Sleepy Hollow Road to the intersection of Sleepy Hollow Road and U.S. Route 9 and across Route 9 to the Hudson River. See, *New York/New Jersey/ Philadelphia Metropolitan Airspace Redesign Draft EIS, Noise Mitigation Report, Figure 31.* The Noise Mitigation Report clearly states that there will be an increase in noise levels within this area. *Id., Figure 32* and associated tables. The Park Preserve is situated directly under the FAA's proposed departure corridor as it proceeds north and west of the Saw Mill Parkway. In fact the corridor nearly perfectly encompasses the entirety of the more than 3000 acres of land that comprises the Park Preserve from its eastern boundary near the Saw Mill Parkway to the Hudson River. *See the attached map of the Park Preserve lands and Exhibits 31 and 32 from the Airspace Redesign Draft EIS Noise Mitigation Report.* Based on current data, fixed wing aircraft will overfly the Park Preserve at elevations of between 3000 feet and 6000 feet, and, based on the FAA's noise impact analysis contained in the DEIS, will generate noise levels in the 60-65 DNL range. Instantaneous noise impacts, which the FAA's DNL noise matrix does not recognize, will be at significantly higher decibel levels.

The Park Preserve was established to provide a quiet, natural environment for walking, picnicking and horseback and carriage driving. Within the New York State park system, the "park preserve" classification restricts public activities to passive enjoyment of the natural amenities provided by the parkland. There is no question that the impact of clustering most of the departures from HPN over the Park Preserve will adversely impact it and the members of the public, including members of the Friends, who use the Park Preserve, effectively destroying the ambience of the Park Preserve.

The FAA must comply with Section 4(f) of the Department of Transportation Act, 49 U.S.C. § 303 with respect to the proposed action. It is settled law that aircraft routing decisions by the FAA that can have a serious indirect noise or other impact on protected park land constitutes a "constructive use" that requires compliance with the restrictions of Section 4(f). 23 C.F.R. § 771.135(p)(1)(iii) (2000); *Moreno Band of Mission Indians v. Fed. Aviation Admin.*, 161 Fed. 3d 569, 583 (9th Cir. 1998). In order for the FAA to avoid the strictures of §4(f) it must make a factually supported finding that the increase in overflight impacts on the protected area is *de minimis*. *Adler v. Lewis*, 675 F.2d 1085, 1092 (9th Cir. 1982), *Save Our*

Heritage, Inc., et al. v. Federal Aviation Administration, et al., 269 F.3d 49 (1st Cir. 2001).

In this case the FAA's own FEIS demonstrates that the impact of the proposed redesign on the Rockefeller State Park Preserve will quite clearly not be *de minimis*. Under current ("no action") conditions less than one-third of the aircraft exiting HPN fly over some portion of the Park Preserve's airspace. Few aircraft fly over the entirety of the Park Preserve. See, *New York/New Jersey/Philadelphia Metropolitan Airspace Redesign Draft EIS, Noise Mitigation Report, Figure 30* and underlying data. The redesign will nearly triple the number of aircraft flying over the Park Preserve at low attitude, and those overflights will encompass the *entirety* of the land of the Park Preserve, instead of only portions of it as is the existing conditions case.

Thus, the FAA may not adopt the preferred alternative airspace redesign for HPN unless it finds that "there is no prudent and feasible alternative" to use of the airspace over the Park Preserve. We submit that the FAA can not make this finding. The original "preferred alternative", depicted on Figure 31 of the Noise Mitigation Report, met the underlying airspace management criteria and shifted the concentrated corridor to the north and east of the Park Preserve. This remains a prudent and feasible alternative to the use of sensitive parkland. Shifting low level overflights from populated areas to parkland is simply not a strategy that is consistent with the underlying purpose of Section 4(f).

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